MITSUBISHI

DEHUMIDIFIER

2005

No.MJW-0502A

SERVICE MANUAL

Model MJ-E16V-S1

Sold from 2005

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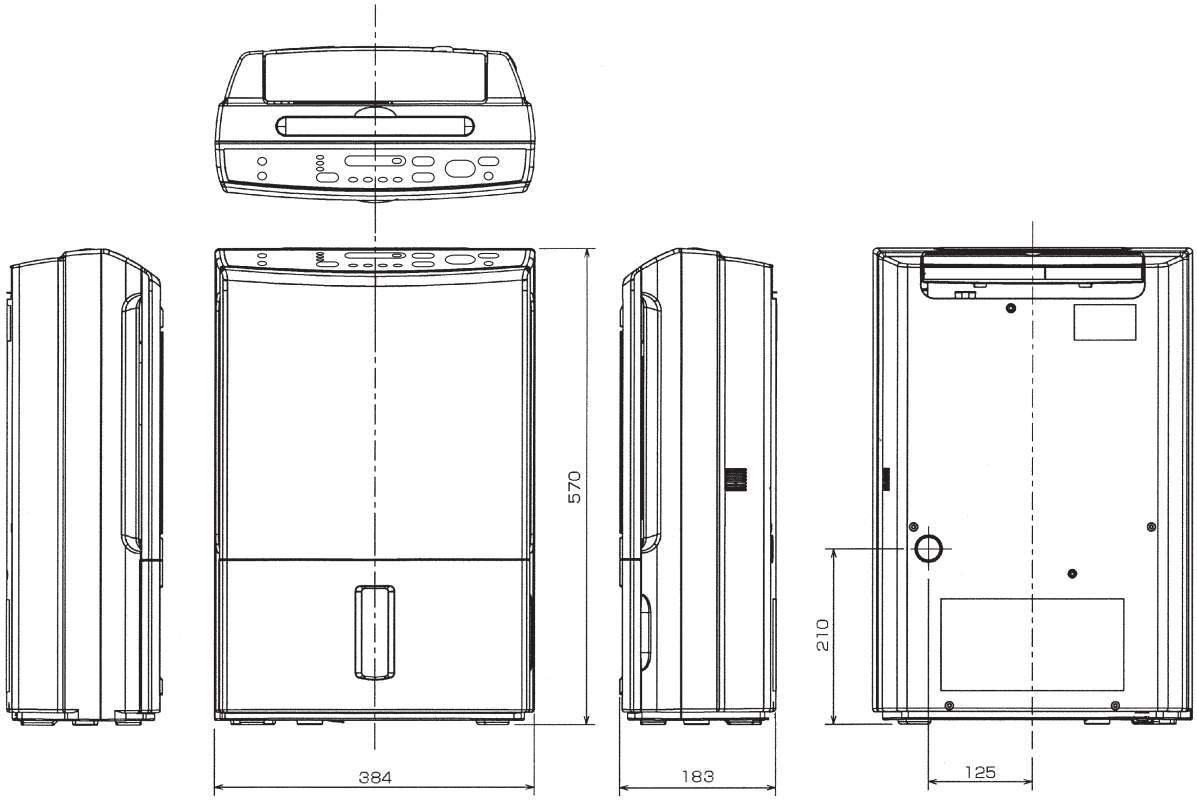
1. Product specifications

Item \ Model			MJ-E16V-S1
Performance	Dehumidifying capacity (30°C room temperature, 80% relative humidity) (liters/day)		16.0
	Operating noise levels(dB)	Laundry	41
		Low	37
Electrical characteristics	Power supply (phases,V,Hz)		Single phase, 220-240V, 50Hz
	Power consumption (W)		275
	Operating current (A)		1.3
	Starting current (A)		5.5
Product performance	Color tone		Beige (C)
	Dimensions (H × W × D mm)		570 × 384 × 183
	Weight (kg)		11.7
	Coolant quantity (g)		120
	Evaporator		Slit fin
	Condenser		Slit fin
	Compressor	Compressor protection	Thermal overcurrent relay
		Model	XB460VTE
		Output (W)	150
		Winding resistance (Ω)(20°C)	Primary: 26.1 , subsidiary: 70.7
	Blower	Blower protection	With temperature fuse
		Type	Sirocco fan
		Output (W)	16
		Flow rate selection	4
		Speed (rpm)	Easy Dehumidifying: 675 or 700 / Laundry: 720 [740] / Low: 675 or 700 / Low Temp: 675 - 700 [740] / Air Purifier: 700 / Drying Inside: 675 or 720
		Flow rate (m^3/min)	Easy Dehumidifying: 2.4 or 2.5 / Laundry: 2.6 [2.7] / Low: 2.4 or 2.5 / Low Temp: 2.4 - 2.5 [2.7] / Air Purifier: 2.5 / Drying Inside: 2.4 or 2.6
	Operating room temperature (reference) (°C)		1 ~ 35 (°C)
	Defrosting method		Hot gas type
	Humidity control		Built-in humidity sensor
	Tank full protection		Lead switch (automatic)
	Tank capacity (liters)		Auto-stopper tripped with about 4.0 liters of water
	Continuous drainage		Commercial hose (inside diameter 15 mm)
	Operation modes		EASY DEHUMIDIFYING · LAUNDRY · LOW · LOW TEMP · DRYING INSIDE · AIR PURIFIER
	Timer		Off timer (2h · 4h · 8h)
	Air cleaning performance		Yes
	Plug socket rating		16A

- The operating noise levels indicated are typical values measured in our anechoic room.

* The brackets [ ] enclose values measured at a room temperature of about 15°C or lower.

2. Outer Dimensions

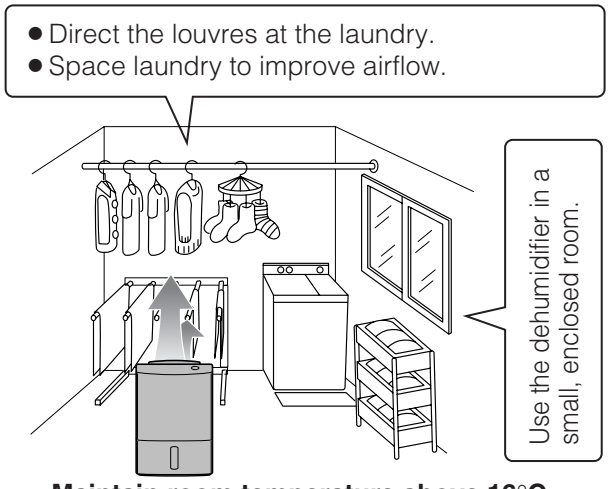


3. External View, Parts and Display Section

Drain the water tank before use

Refrain from opening doors/windows during operation

Drying laundry indoors



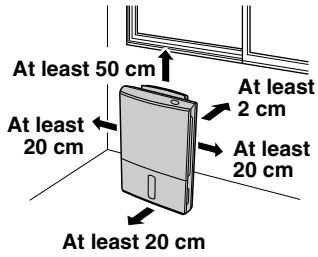
Maintain room temperature above 16°C with an air conditioner

- Drying times will vary depending on the nature of the laundry and the room temperature. In low temperatures, drying takes about twice as long as normal. In low temperatures (10°C), drying takes about twice as long as when normal (20°C+).
- The airflow is strongest to the top right of the unit.

Installing your dehumidifier

Make sure to leave some space around the unit.

<For use in close proximity to a wall>
Stop the louvre in the vertical position. Blowing air at the wall may cause staining.

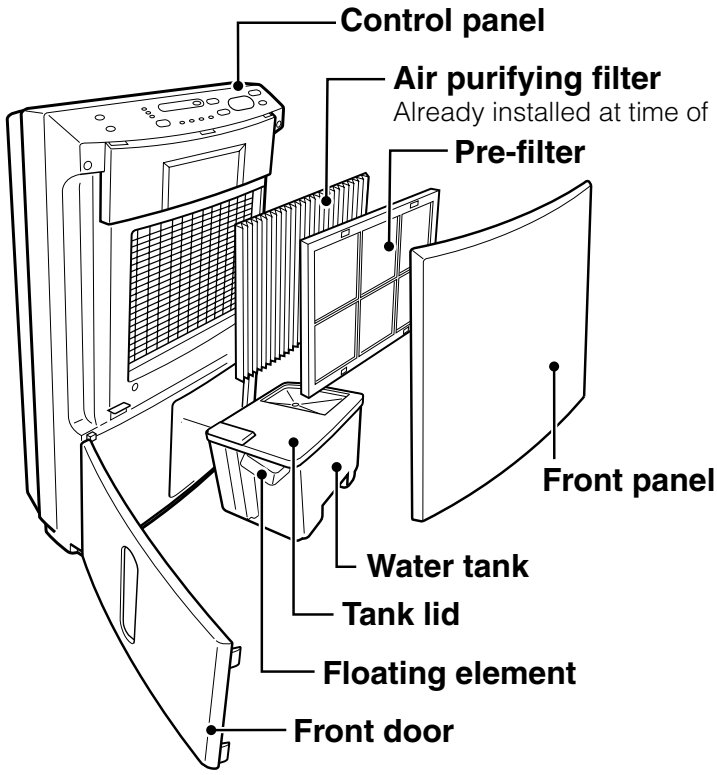


Operating noise

Place the unit on top of a mat. This reduces vibration and noise. It also prevents leaving depressions on carpets.

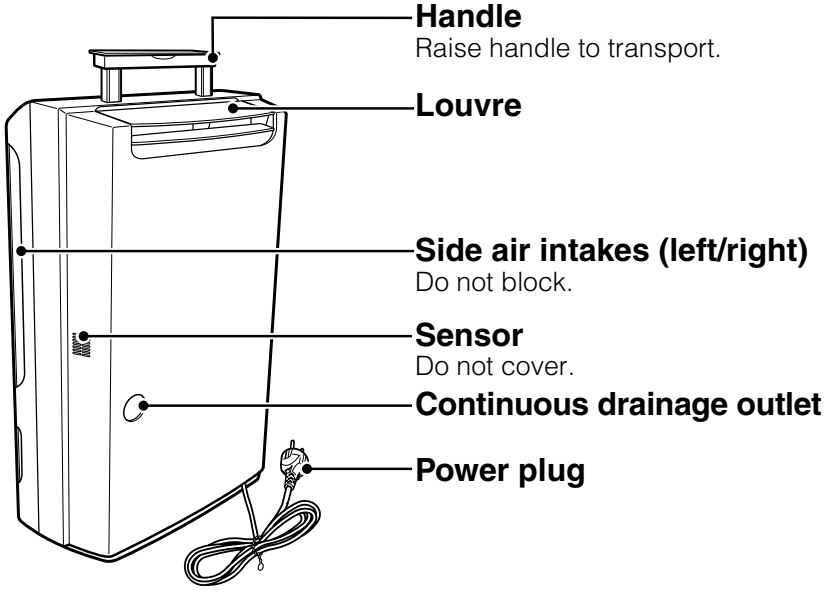
4. Names and Functions of Parts

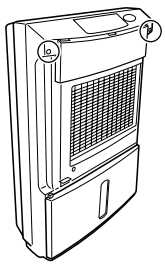
Front



The water tank may contain water residue at time of purchase. This is from final product testing at the factory and is not due to a defect.

Back

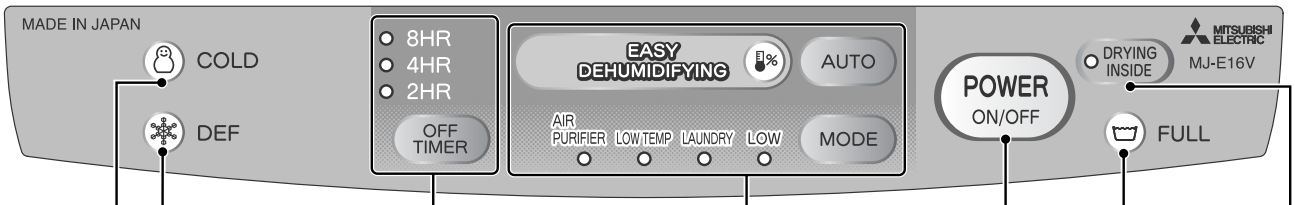




NOTE

It is impossible to remove the back panel because the two spots shown are fastened with two special screws.
If the unit malfunctions, contact your Mitsubishi dealer:

Control Panel



- **OFF Timer Lamp**
  Set time lights.
- **OFF Timer button**
  For setting the Timer.

- **Lamp**
  Current mode lights.
- **Auto button**
  Switches mode to AUTO.
- **Mode button**
  For switching from one operating mode to another.

- **Power button**
  Use this to switch the unit ON and OFF.

- **Drying inside lamp**
  Flashes when drying inside in progress.
- **Drying inside button**
  Activates/ deactivates drying inside.

You can select from 5 operating modes.

- **AUTO**
- **LOW**
- **LAUNDRY**
- **LOW TEMP**

All modes include dehumidifier and air purifier functions.

- **AIR PURIFIER**

Air purifier only operation. The dehumidifier function is disabled.

COLD (COLD lamp)

The lamp lights up if the room temperature drops below 15°C. Activating LOW TEMP mode is recommended.

DEF (DEF lamp)

Airflow (dehumidifying) will stop and the frost that has accumulated inside will be melted and dropped into the tank when the lamp is on.
Please wait a moment as operation will resume in around 5 minutes.

While in DEFROST mode, airflow (dehumidifying) will stop. The sounds coming from the unit will also change.

DEFROST will start automatically when room temperature drops below 15°C (This may be as often as once every 40 minutes).

FULL (TANK FULL lamp)

The unit automatically shuts down and indicates with the lamp and sound that the water tank is full.
Empty the water tank.

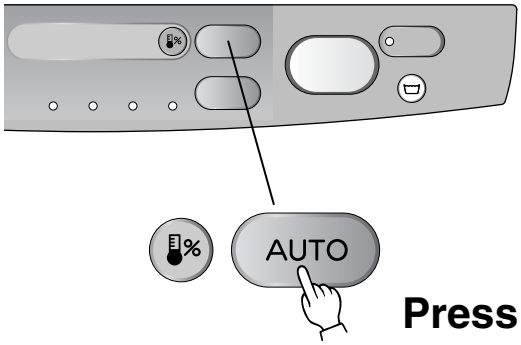
- **Tank full lamp lights. (The unit beeps.)**
- **Airflow stops**
- **Lamp turns off**

- After removing the water and replacing the tank, the Tank full lamp will go off, and then the unit will automatically return to operation mode.
- When the Tank full lamp is lit, no operation but ON/OFF is possible.

Modes

AUTO

When you want to dehumidify easily.

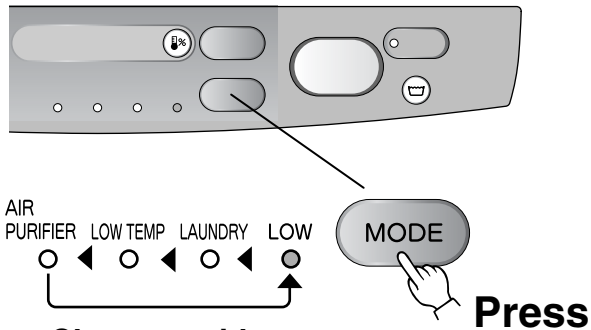


Press

- **AUTO lamp lights**

LOW, LAUNDRY, LOW TEMP and AIR PURIFIER

LOW mode is for when you want to leave the dehumidifier on, LAUNDRY mode is for when you want to dry laundry, LOW TEMP mode is for preventing condensation or when the room temperature is low and AIR PURIFIER mode is for when you want to use only the air purification function.



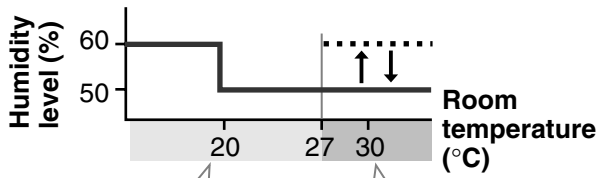
Changes with every press

Press

- **Selected mode lamp lights**

● AUTO

The unit operates intermittently controlling the airflow to remove the damp feeling in the air. (There is no need to set the humidity level.) When the room temperature is high, the blower operates to decrease the damp feeling.



Room temperature is below 27°C - the unit automatically sets the humidity level according to the temperature.

Room temperature is above 27°C - the unit lowers the humidity level to 50%, then activates the blower. The dehumidifier is reactivated when humidity rises to 60%.

● LOW

The dehumidifier operates at Low regardless of the humidity level.

● LAUNDRY

The dehumidifier operates at High regardless of the humidity level.

● LOW TEMP

The unit operates continuously automatically controlling airflow according to room temperature. The airflow is strongest below 15°C. The use of LOW TEMP mode is recommended when the COLD lamp is lit.

Information

When the temperature is low, condensation may still form on windows exposed to the outside air even when LOW TEMP mode is operating.

● AIR PURIFIER

The unit cleans the air by passing it through the pre-filter and air purifying filter.
The dehumidifying function is disabled.

Information

- The air passes through the pre-filter and air purifying filter in all modes, cleaning the air even if the air purifier lamp is not lit.
- Cigarette smoke and toxins found in smoke, such as carbon monoxide, cannot be removed with these filters.

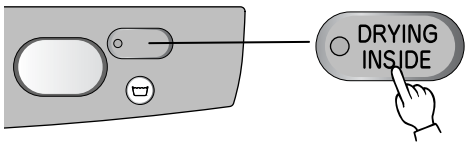
- When temperature/humidification lowers, dehumidification level lowers.

● Drying inside

The inside of the unit can be dried to suppress mildew growth on the cooler.
On days the dehumidifier is used, drying inside is recommended.

Automatic operation

To activate drying inside after every use.



Press while the unit is on

● **Drying inside standby**
(Drying inside lamp lit)

Drying inside starts when operation ends
When the unit is turned off or the OFF timer ends.

● **Drying inside starts**
Drying inside lamp flashes.
Power lamp turns off.

Set the louvre upright.

Drying inside mode

● **Drying inside ends**
The Drying inside lamp turns off.

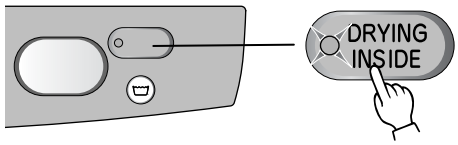
Close the louvre.

<To deactivate automatic operation>

Press the Drying inside button while the unit is on
(the Drying inside lamp turns off)

Manual operation

To activate drying inside by pressing a button.



Press while the unit is off

● **Drying inside starts**
Drying inside lamp flashes.
Power lamp turns off.

Set the louvre upright.

Drying inside mode

● **Drying inside ends**
The Drying inside lamp turns off.

Close the louvre.

To abort drying inside

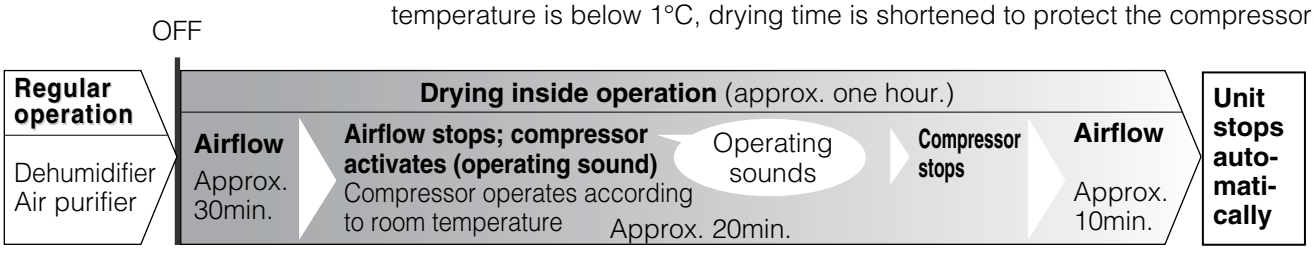
Press the drying inside button while the unit is performing internal cleaning (the drying inside lamp turns off)

The power button does not abort drying inside.
(Normal operation begins.)

Information

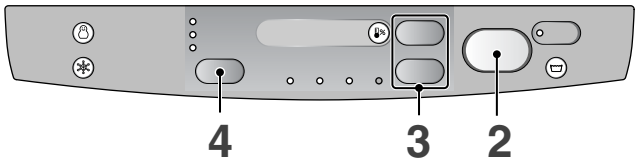
- **It is recommended that the louvre be set upright when using drying inside.** (Closing the louvre may produce noise.)
- Connecting/disconnecting the power plug deactivates automatic operation.
- This function does not remove existing mildew. Also, aborting drying inside may cause the benefits to diminish.
- The moisture expelled from inside the unit may cause the humidity level of the room to rise.
- The air leaving the unit may appear white depending on the humidity or temperature of the room.
- The moisture expelled from inside the unit may smell due to odorants that were not caught by the filter dissolving in the water.
- The OFF timer cannot be set during drying inside.

<Drying inside operation> This operation takes approximately one hour. However, when the room temperature is below 1°C, drying time is shortened to protect the compressor.



[OFF Timer Operation]

The OFF timer can be set for each 2, 4, 8 hours.
Set the timer when the power is switched on.



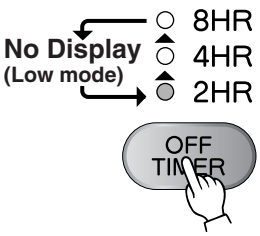
1 Open the louvre manually

2 Switch the power on

3 Select operating mode

Select desired operating mode

4 Set operating time



- **One press - 2 is displayed**
- **Each consecutive press displays the following setting (2, 4, 8)**

Press

→The OFF Timer is set

- **OFF Timer lamp indicates remaining time**
- **Power automatically turns off at set time**

If drying inside is set to activate automatically, drying inside activates.

To cancel

<When you want to turn the unit off>

Press the Power button. (Power off)

Press

<When you want to disable the Timer OFF mode, and continue operation>

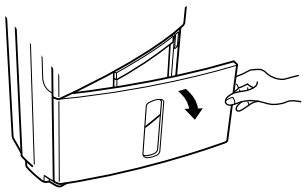
Hold down the button until the OFF Timer lamp goes out. The unit returns to Low mode.

Press

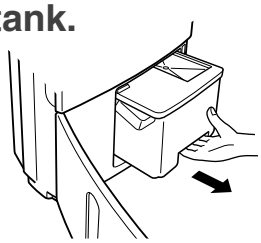
[Removing Water from the Tank]

The unit automatically shuts down and lights the Tank full lamp when the tank (approximately 4L) is full.
Empty the tank.

1 Remove the water tank.

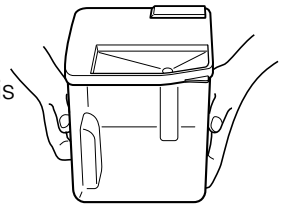


Open the front door.



Grasp handle and slide out.

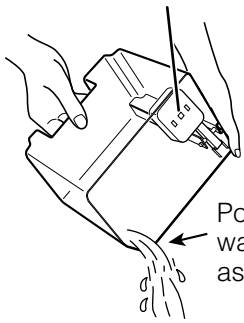
<Hold the tank this way>



2 Remove the tank lid, and empty.

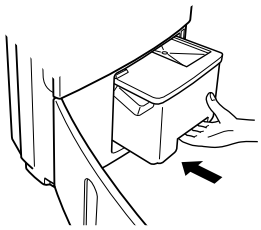
Floating element
Do not remove or dismantle the float.

Tank lid



Pour the water out as shown.

3 Reattach the tank lid and replace the water tank.



Confirm that the lid is securely attached to the water tank, and push the tank in. Close the front door.

- If the lid is not properly closed, you may have problems removing the tank.
- If the tank is not installed correctly, the tank full light will come on, and the unit will not operate.

Information

- Empty the water tank before operating. The unit stops and the Tank full lamp lights if the tank becomes full during operation.
- The OFF timer cannot be set while drying inside is operating.

Note

Do not remove or dismantle the floating element in the tank. If it is removed, the unit cannot detect when the tank is full, and this could result in leakage.

5. Technical points

5.1 The technical points of the new products

1) Drying inside

During dehumidification, moisture accumulates on the heat exchanger. If left, this can lead to mildew growth, which is circulated around the room with the air discharge. Drying inside starts automatically after operation, and dries any moisture inside the unit.

2) Powerful 16-litre/day dehumidifying

The uncomfortable damp feeling caused by humidity is something that needs to be removed quickly. Mildew can grow and damage the home or clothing when closets, dressing rooms, shoe cabinets, and other spaces where humidity is prone to collect are not dehumidified. A single high-capacity unit is effective in dehumidifying and drying various locations throughout the home, quickly moving from one point to the next.

3) Room humidity and sensible temperature comfortably controlled

The EASY DEHUMIDIFYING mode controls humidity according to room temperature. If the room temperature rises during dehumidification, use CIRCULATION mode (*1) to lower the sensible temperature.

*1 The automatic dehumidification and blower modes operate alternately controlling the sensible temperature and humidity to a comfortable level (50%–60%).

5.2 Operation and Performance

Working temperature

Dehumidification is possible with a room temperature of 1 – 35°C. If the room temperature exceeds 35°C, however, the temperature inside the unit will increase; therefore, the protective device may activate and halt operation in some cases. For this reason, the louvres should be aimed upward.

- If the room temperature is lower than 1˚C, there is danger of the removed water freezing, making dehumidification impossible, so the fan will start operating.

Defrosting

The unit may display ❄ during operation and stop air flow, followed by a change in the operating noise. The unit has stopped the airflow, and is melting internal frost into the water tank. The unit will resume automatically when the defrost operation completes.

[This operation will be performed automatically when the room temperature is approximately 15°C or lower. (When humidity is high, this will occur approximately once every 40 minutes for 5 – 10 minutes.)]

Wait for 3 minutes before dehumidifying

The dehumidifier will not operate for 3 minutes when the unit is turned on immediately after being turned off or plugged in. (In order to protect the compressor.)
When dehumidifying begins, the operational noise increases. This is not a malfunction.

Room temperature may rise 2-4°C during operation

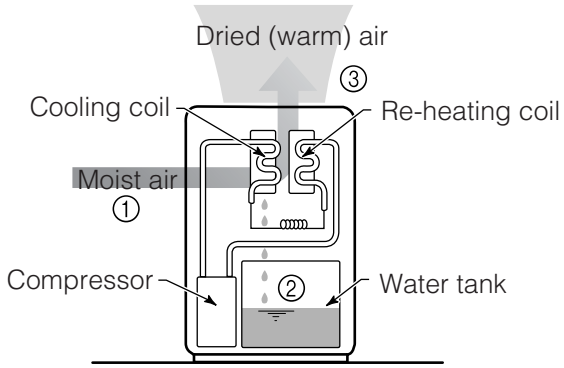
The dehumidifier does not have a cooler function. Due to heat produced during operation, the room temperature may rise 2-4°C As a result, the unit may blow warm air, but this is not due to a malfunction. During winter, the air may not feel warm as the temperature is below body temperature.

How does the dehumidifier work?

If you pour cold water into a cup, the air around it becomes cold, causing water droplets to form on the surface of the cup.
The dehumidifier takes advantage of this phenomenon to remove moisture from the air.

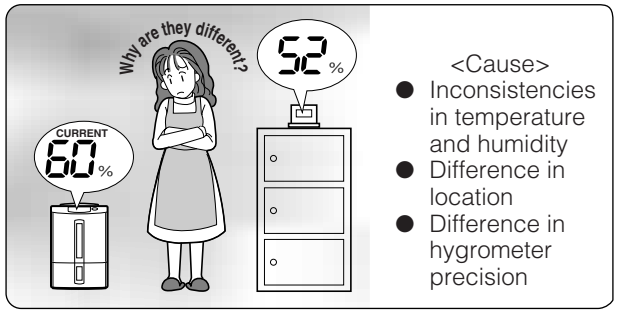
① The unit draws air from the room, cools it with its cooling coil, causing the moisture to transform into water droplets.
② The water droplets fall into the water tank.
③ **The dehumidified air is reheated by the heating coil, and then discharged.**

The humidity of the room is thus reduced by repeating steps ①, ②, and ③.

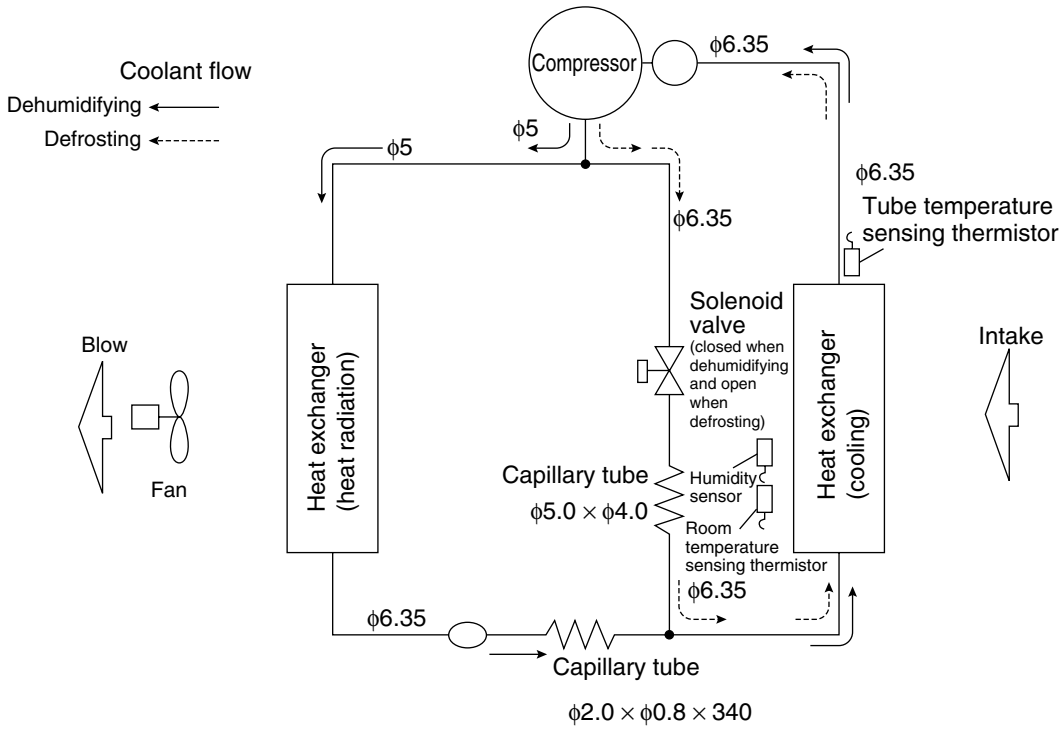


The humidity reading on the unit may differ from a hygrometer in the same room

Even in the same room, temperature and humidity levels may differ from place to place. If the hygrometer and the unit are in different parts of the room, the humidity levels are prone to differ.
Moreover, humidity levels differ between places that have good and no airflow.
Use the reading on the unit as an estimate.



5.3 Coolant Circuit



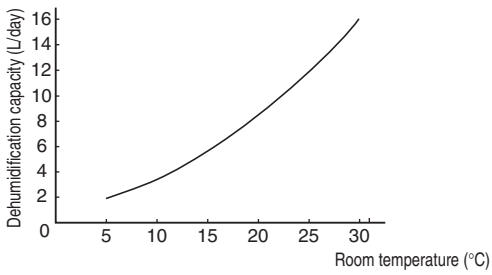
5.4 Performance curve

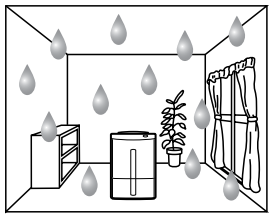
When the temperature and humidity are low, the amount of water collected is decreased.

In winter, because the temperature is lower than in summer, the effects of the dehumidifier decrease dramatically as shown in the graph below.
Although less water collects in the tank, this is not a malfunction.

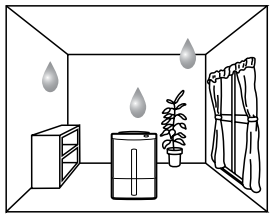
* If the temperature is low, but the humidity is high due to snow or rain, operating the unit in LOW TEMP mode will yield better results than in LOW mode.

Values for LOW when humidity is 80%.





Summer (humidity)



Winter (dampness)

- The values shown on the graph were measured at constant temperature and humidity and do not reflect values obtained in actual usage conditions.

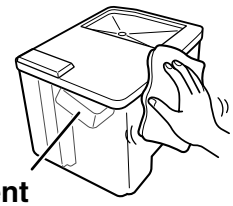
Maintenance

Do not use detergents, cleaning agents for heat exchange equipment, abrasive powders, chemically treated dusters, gasoline, benzene, thinners or other solvents, as they can damage the unit or the water tank, which may result in leakage.

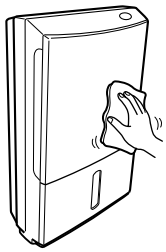
Cleaning

Water tank • Main unit

Wipe with a soft cloth.



Floating element
Do not remove or dismantle.



Do not remove **the louvre front door.**

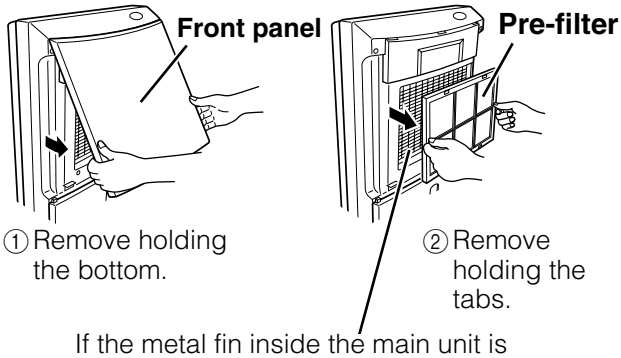
- The unit draws in dust present in the air, and this may cause the tank to **gradually become dirty**. If the dirt does not come off easily, wash with cold or warm water, then wipe with a soft, dry cloth.
- Mildew may form in the tank unless kept clean.

Once every two weeks

Pre-filter

Debris clogging the pre-filter reduces the effectiveness of the dehumidifier. Clean once every 2 weeks.

1 Remove the front panel and pre-filter.

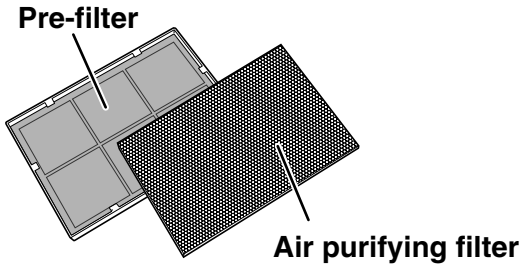


① Remove holding the bottom.

② Remove holding the tabs.

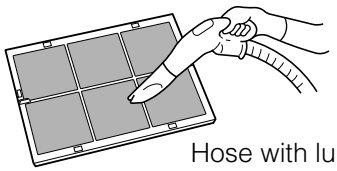
If the metal fin inside the main unit is slightly bent, the unit's performance is not affected.

2 Remove the air purifying filter.



The air purifying filter cannot be washed in water. Replace the air purifying filter when it becomes dirty.

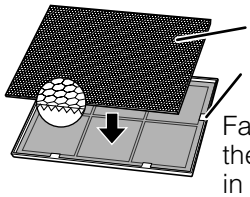
3 Clean the pre-filter.



Remove grit with vacuum cleaner.

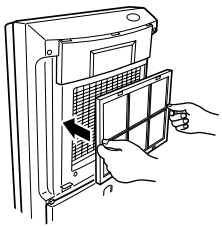
Hose with lukewarm water when excessively soiled. Dry well.

4 Fit the air purifying filter.

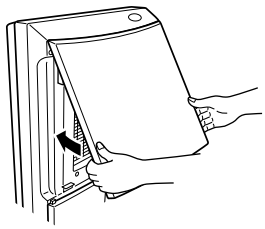


Face the honeycomb side of the air purifying filter up and fit in the inside of the tabs of the pre-filter.

5 Attach the pre-filter and front panel.



① Attach holding the tabs.



② Hook the top edge to the top part of the unit and push the bottom in.

Replacing the Air Purifying Filter

The air purifying filter is disposable.
Make sure to replace the filter when it becomes dirty. (The filter cannot be washed or reused.)

When to replace it

Replace the filter when it becomes dirty (brownish) with cigarette smoke, dust, etc.

Generally, one filter should last about 6 months. (This will depend on usage conditions.)

Replacing air purifying filter

For maintenance procedures see xx

1 **Remove the front panel and pre-filter**

2 **Replace air-purifying filter**

3 **Attach air filter and front panel**

Parts sold separately

Air purifying filter for replacement

- Type: MJPR-SXFT
- Type code: 5C5 813

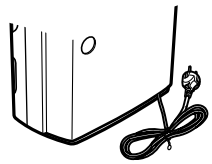
For these items contact your nearest Mitsubishi Electric dealer.

Storage

After switching the unit off, leave for one day until any water inside has had time to run off, then carry out the following steps.

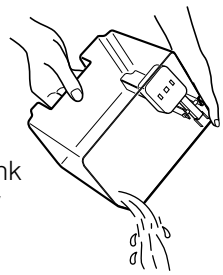
1 **Perform drying inside.**
Performing drying inside to prevent mildew growth is recommended.

2 **Bundle power cord.**



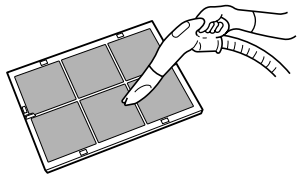
3 **Remove the drainage water.**

Empty the water tank and wipe away any remaining drops of water.



4 **Clean the pre-filter.**

Remove grit with vacuum cleaner.



5 **Store the unit.**

- **When you are sure that all parts of the unit are dry, cover it with a cloth to keep it from dust.**
- **Store the unit in an upright position in a place not exposed to direct sunlight.**

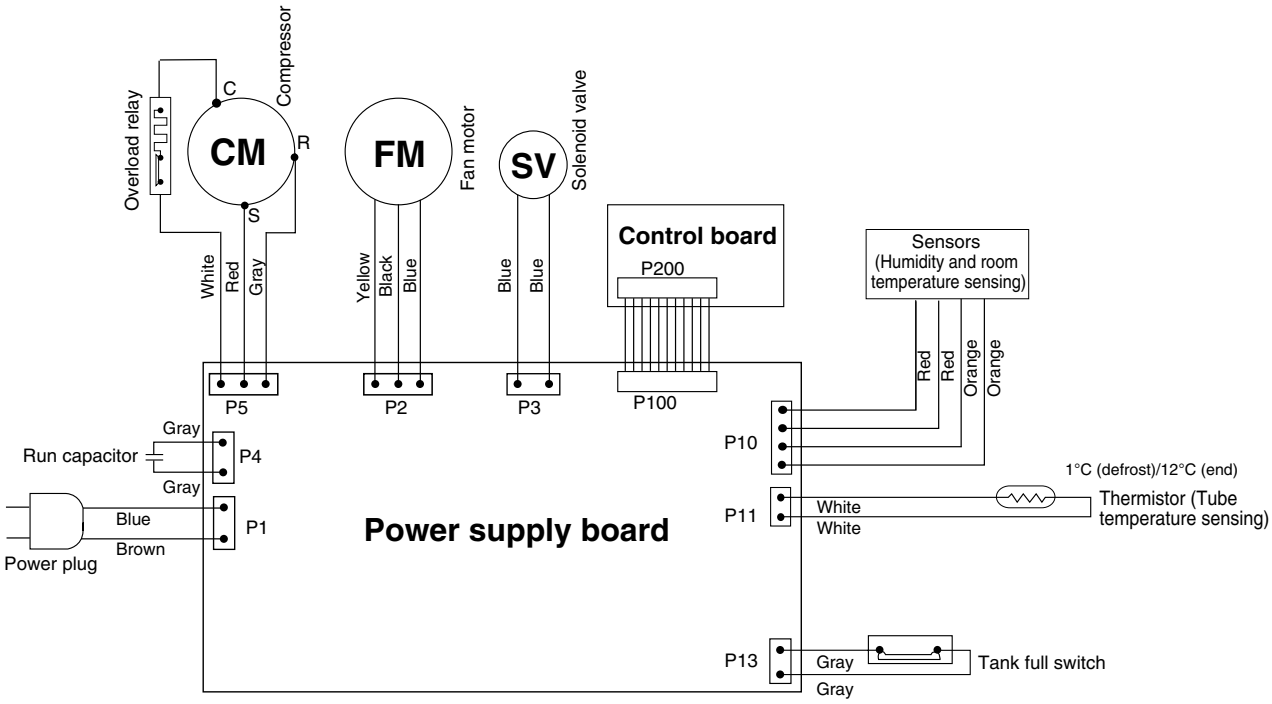
When disposing the unit

Dispose according to the garbage regulations in your district.

- Air purifying filter
  Material: PP, PET
- Unit
  Do not disassemble. Dispose according to the garbage regulations in your district.

7. Wiring Diagram and Block Diagram

7.1 Wiring Diagram



Safety Devices

(1) Current fuse .....Overcurrent flow caused by deterioration in electrical parts or other problems turns the power source to OFF.
<Current setting: 2A>

(2) Motor protector (Overload relay) .....The compressor stops operating if the room temperature exceeds 35°C. The compressor will also shut down when malfunctions or other problems cause the current flow to exceed 5.3A.

(3) Control circuitry .....The room temperature thermister senses temperature below about 0°C, and shuts down the compressor.

(4) Thermal fuse .....When blower motor temperature exceeds 133°C due to blower locking or other malfunctions, blower operation shuts down.

7.2 Function List

		Operation off	Operation mode								
			Dehumidifying operation								
			Easy Dehumidifying	Low	Laundry	Low temp	Air purifier	Defrost	Tank full	Off timer	Drying inside
Compressor		OFF	ON/OFF	ON	ON	ON	OFF	ON	OFF	OFF	–
Blower		OFF	Mi/Lo/OFF	Lo	Hi	ON	ON	OFF	OFF	OFF	Mi
Solenoid value		OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	–
Indicator	Easy dehumidifying	×	○	×	×	×	×	One item is ○	×	×	×
	Low	×	×	○	×	×	×		×	×	×
	Laundry	×	×	×	○	×	×		×	×	×
	Low temp	×	×	×	×	○	×		×	×	×
	Air purifier	×	×	×	×	×	○	×	×	×	×
	Off timer	×	△	△	△	△	△	△	△	×	×
	Tank full	×	×	×	×	×	×	×	○	×	×
	Defrost	×	×	×	×	×	×	○	×	×	×
	Low temperture	×	△	△	△	△	△	△	△	×	×
	Drying inside	△	△	△	△	△	△	△	△	×	◎

※ ○ = Lit. ◎ = Flashing. △ = Can light. × = Not lit.
– = Varies by conditions.

<Operation Control>

1 Specifications shared at all operation modes
The compressor and blower fan will operate for about 6 minutes after turning on the operation switch or activating the compressor, regardless of humidity or temperature levels.

2 Low, Low Temp, Air Purifier

	Compressor	Fan temperature table			
		→←14°C	16°C→←27°C	29°C→←34°C	36°C→←
Low	ON	Rank 1	Rank 1	Rank 2	Rank 5
Laundry	ON	Rank 3	Rank 4	Rank 4	Rank 5
Low Temp	ON	Rank 6	Rank 1	Rank 2	Rank 5
Air Purifier	OFF	Rank 1	Rank 1	Rank 1	Rank 1

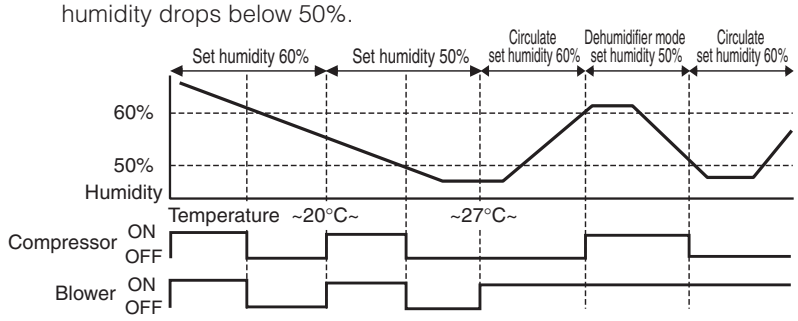
3 Easy Dehumidifier

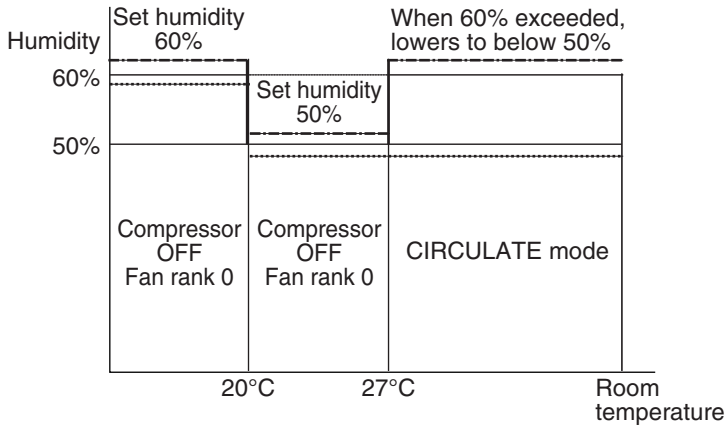
Current humidity – Set humidity		Temperature	←20°C	22°C→←27°C	29°C→←34°C		36°C→	
		Temperature table	0	1	2		3	
		Set humidity	60%	50%	60%	50%	60%	50%
		Dehumidification	Dehumidifier mode	Dehumidifier mode	Circulate	Dehumidifier mode	Circulate	Dehumidifier mode
↓	↑ +5%	Fan rank	Rank 1	Rank 1	To Dehumidifier mode	Rank 2	To Dehumidifier mode	Rank 5
		Compressor	ON	ON		ON		ON
+3% ↓	↑ +1%	Fan rank	Rank 1	Rank 1		Rank 2		Rank 5
		Compressor	ON	ON		ON		ON
–1% ↓	↑	Fan rank	Rank 0	Rank 0	Rank 4	To Circulate mode	Rank 5	To Circulate mode
		Compressor	OFF	OFF	OFF		OFF	

1. Controls
(a) Adjusts humidity according to room temperature for increased comfort.
(b) CIRCULATION mode is activated when the temperature is high and the humidity is low. This mode keeps the compressor off.

Target part	Compressor	Airflow fan	Solenoid valve	Louvre
Operation	ON/OFF	Rank control	OFF	ON/OFF

(c) Switches temperature table every 60 seconds to prevent the blower from turning on and off at the 3-minute restart for the coloured section in the chart above. (51% – 59%)
(d) When the room temperature is above 29°C (temperature rising) or 27°C (temperature decreasing), CIRCULATE mode operates with the humidity below 50%.
(e) The unit activates the dehumidifier when the humidity rises above 60%, and returns to CIRCULATE mode when the humidity drops below 50%.





2. Easy DEHUMIDIFYING mode is disabled in the following cases.
(a) The MODE button is used to activate the previously set mode (AIR PURIFIER, LOW, AUTO, LAUNDRY, LOW TEMP).
(b) The DRYING INSIDE button is used to activate DRYING INSIDE mode.

4 Drying inside

1. Controls
   (a) Prevents the growth of mildew by drying the moisture accumulated on the heat exchanger when the dehumidifier is OFF.
   (b) Drying inside operation does not depend on having a full water level.
   (c) The following operations are performed during drying inside operation.

Target part	Compressor	Airflow fan	Solenoid valve
Operation	ON/OFF	Rank control	OFF

2. Start conditions for drying inside operations
   (a) Automatic drying inside mode - This mode starts when the Drying inside button is set to ON, and any of the following conditions are met.
      • The Power button is turned OFF.
      • The OFF timer time is reached.
   (b) Manual drying inside mode - This mode starts when the Drying inside button is operated while the following condition is met.
      • The Power button is turned OFF.

3. Operating details
   (a) The following indications are displayed during DRYING INSIDE operation
      • LED indicator: Only Drying inside lamp flashes, others off
   (b) Drying inside operates according to the following steps
      • Step 1: Moisture is allowed to drip from the heat exchanger.
      • Step 2: Moisture on the heat exchanger is dried with air.
      • Step 3: Moisture on the heat exchanger is dried with heat.
      • Step 4: The heat exchanger is cooled if the temperature rises too high.
      • Step 5: Internal humidity is discharged in Step 4.
   (c) Step 3 does not perform the tube temperature or room temperature check that accompanies a microprocessor reset, and jumps directly to Step 5.
   (d) Mechanisms operated in the above steps (* are deemed E^2PROM data.)

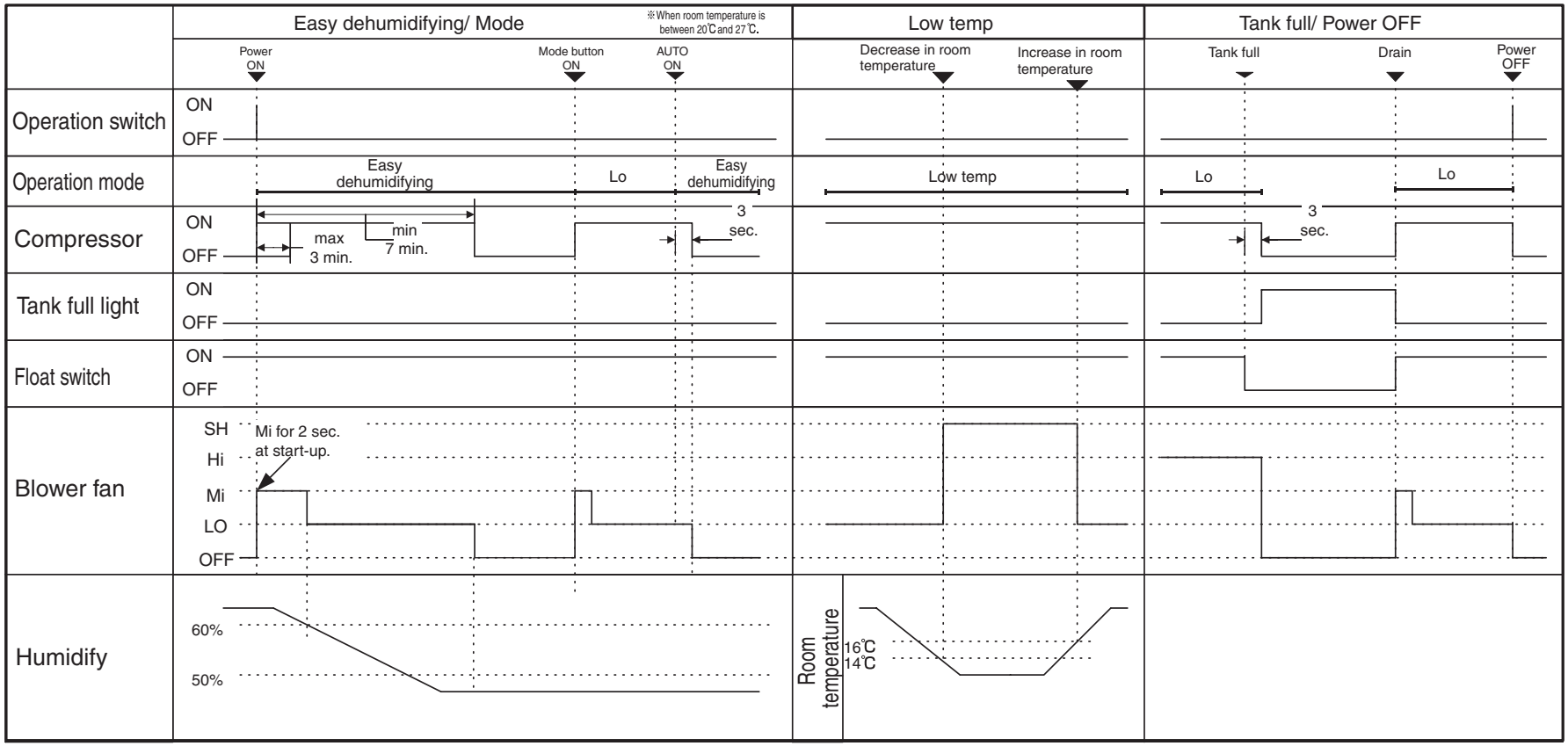
Step	Fan	Compressor	Solenoid valve	Conditions for moving to next step
Step 1	Rank 1	OFF	OFF	Operates for 5 min.
Step 2	Rank 1	OFF	OFF	Operates for *25 min.
Step 3	Rank 0	ON	ON	Moves to Step 5 when tube temperature is above 45˚C * or unit operates for MAX 20 min.
Step 4	Rank 0	OFF	OFF	Operates for 20 min including time for Step 3. *
Step 5	Rank 1	OFF	OFF	Drying inside stops after operating for 10 min.

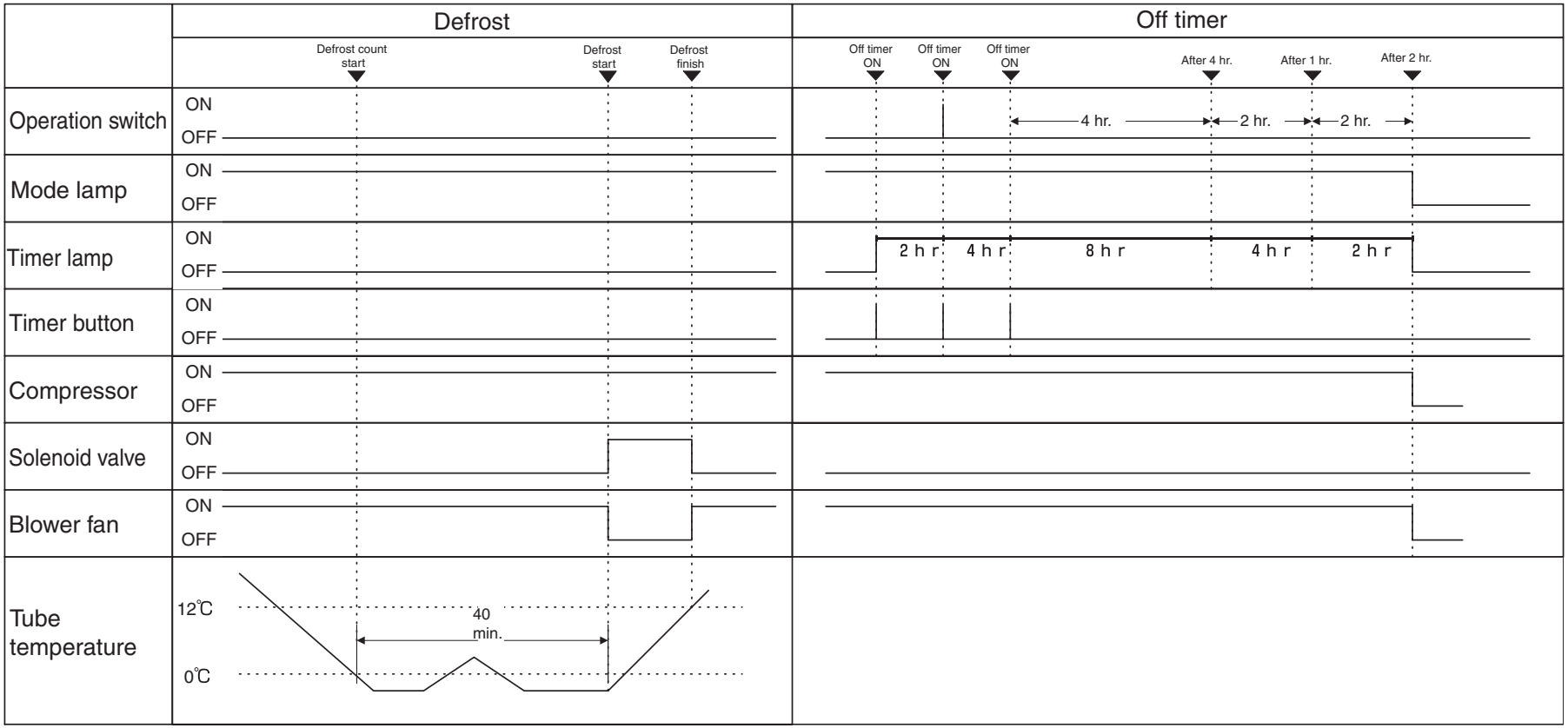
4. Conditions for drying inside operation to end
   (a) Upon completion of step 5 above.
   (b) The following buttons terminate drying inside operation (during steps 1 to 5 above) when pressed.
      • Power button
      • Drying inside button
      • ON timer button
   (c) The following operations are performed when drying inside ends.

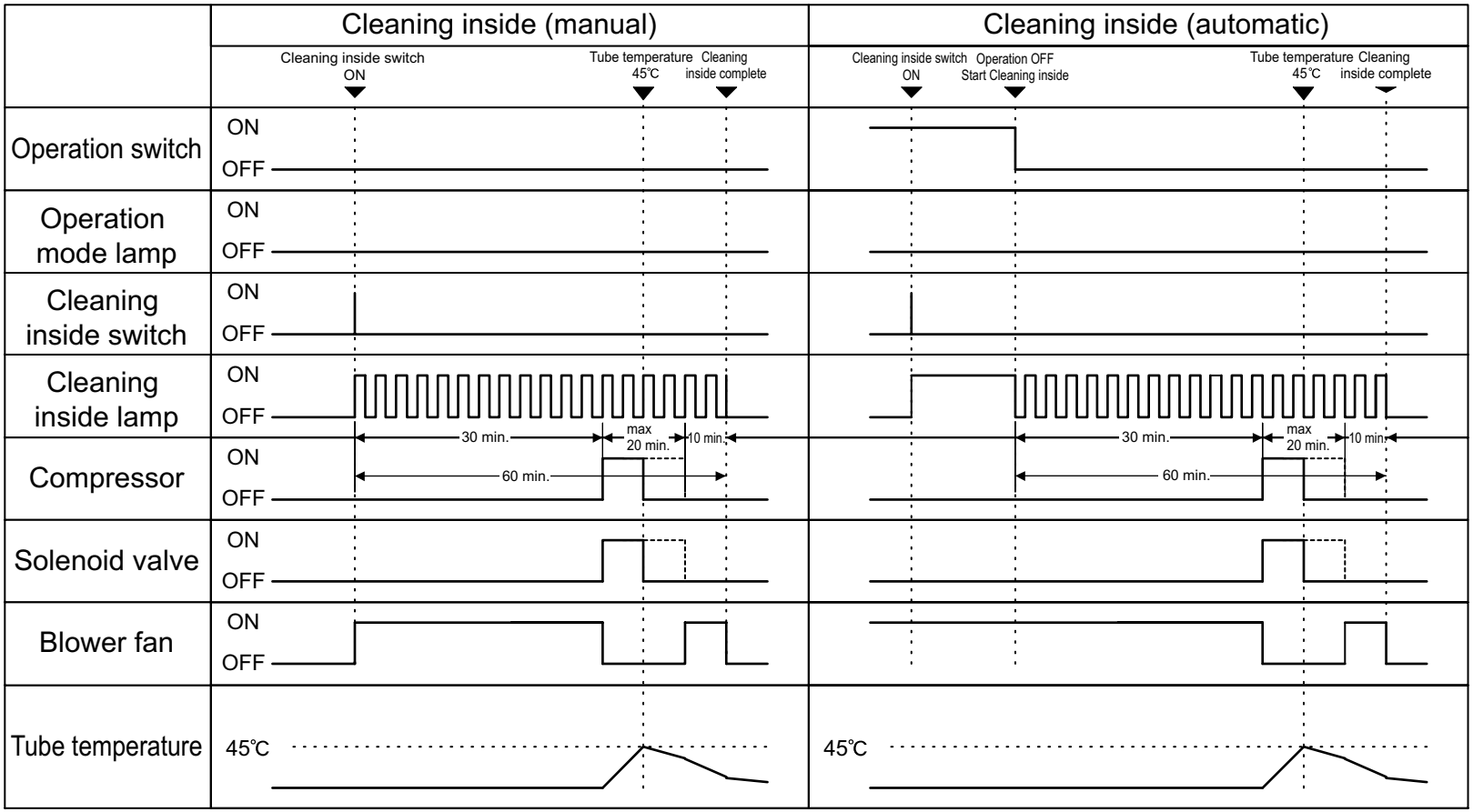
Target part	Compressor	Airflow fan	Solenoid valve	Louvre
Operation	OFF	Rank 0	OFF	Closed

5. Drying inside operation is not performed under the following conditions.
   (a) The power is ON.
   (b) The ON timer is operating.
   (c) An error is detected during self-diagnosis.

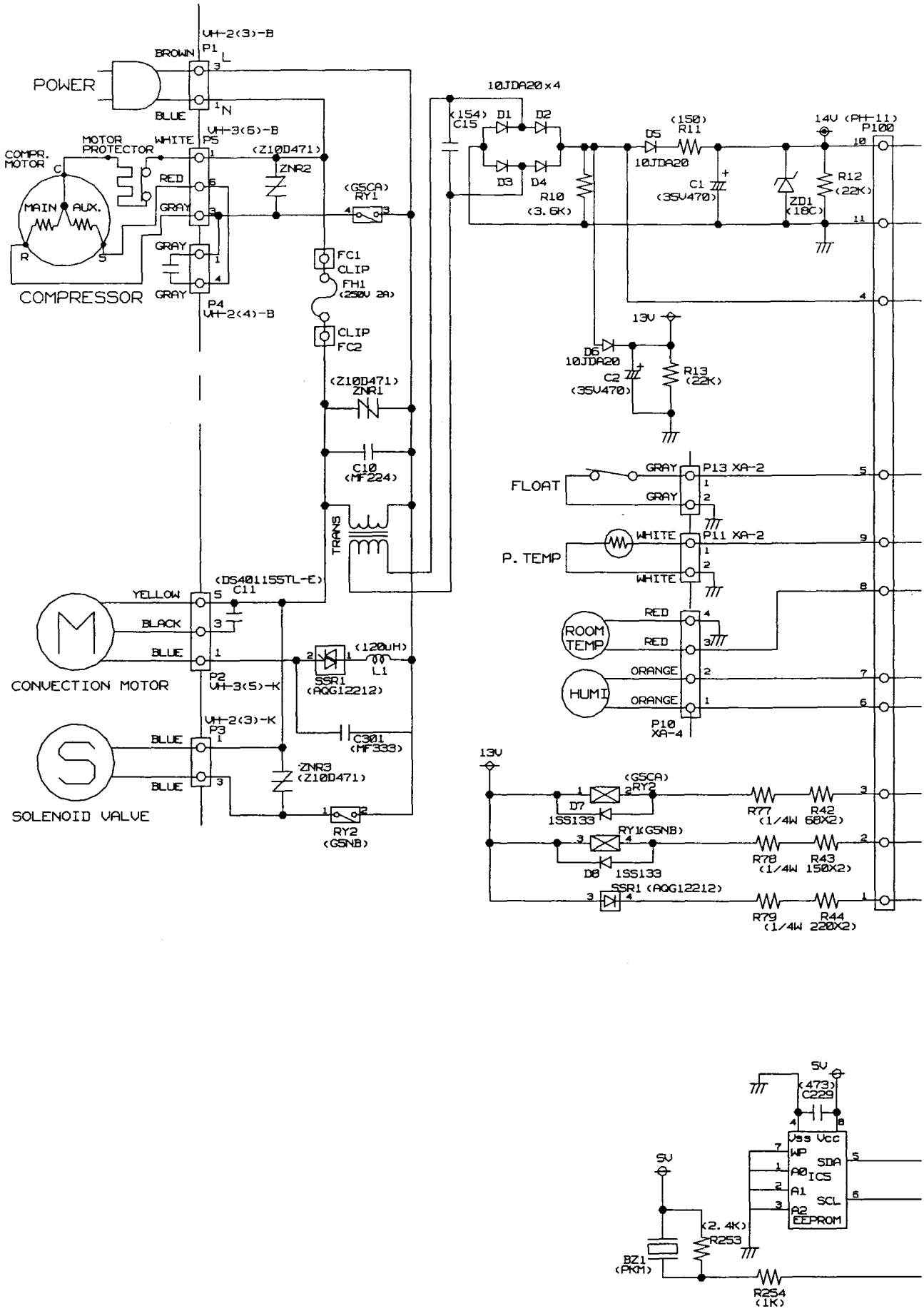
7.3. Timing Charts

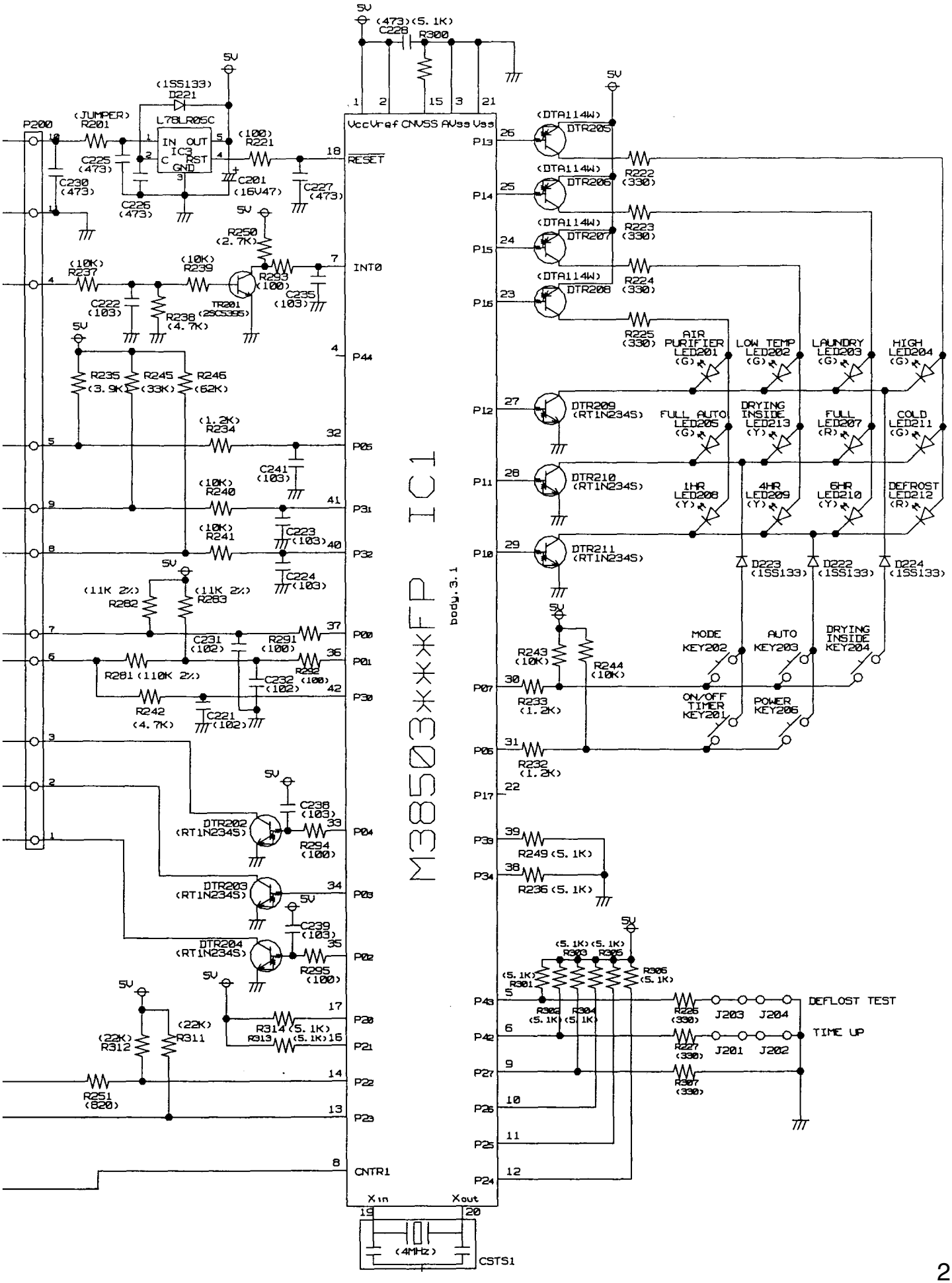



Defrost
Off timer
Defrost count start
Defrost start
Defrost finish
Off timer ON
Off timer ON
Off timer ON
After 4 hr.
After 1 hr.
After 2 hr.
Operation switch
Mode lamp
Timer lamp
Timer button
Compressor
Solenoid valve
Blower fan
Tube temperature
ON
OFF
4 hr.
2 hr.
2 hr.
2 h r
4 h r
8 h r
4 h r
2 h r
12℃
0℃
40 min.


Cleaning inside (manual)
Cleaning inside (automatic)
Cleaning inside switch ON
Tube temperature 45℃
Cleaning inside complete
Operation OFF Start Cleaning inside
Operation switch
Operation mode lamp
Cleaning inside switch
Cleaning inside lamp
Compressor
Solenoid valve
Blower fan
Tube temperature
ON
OFF
30 min.
max 20 min.
10 min.
60 min.
45℃

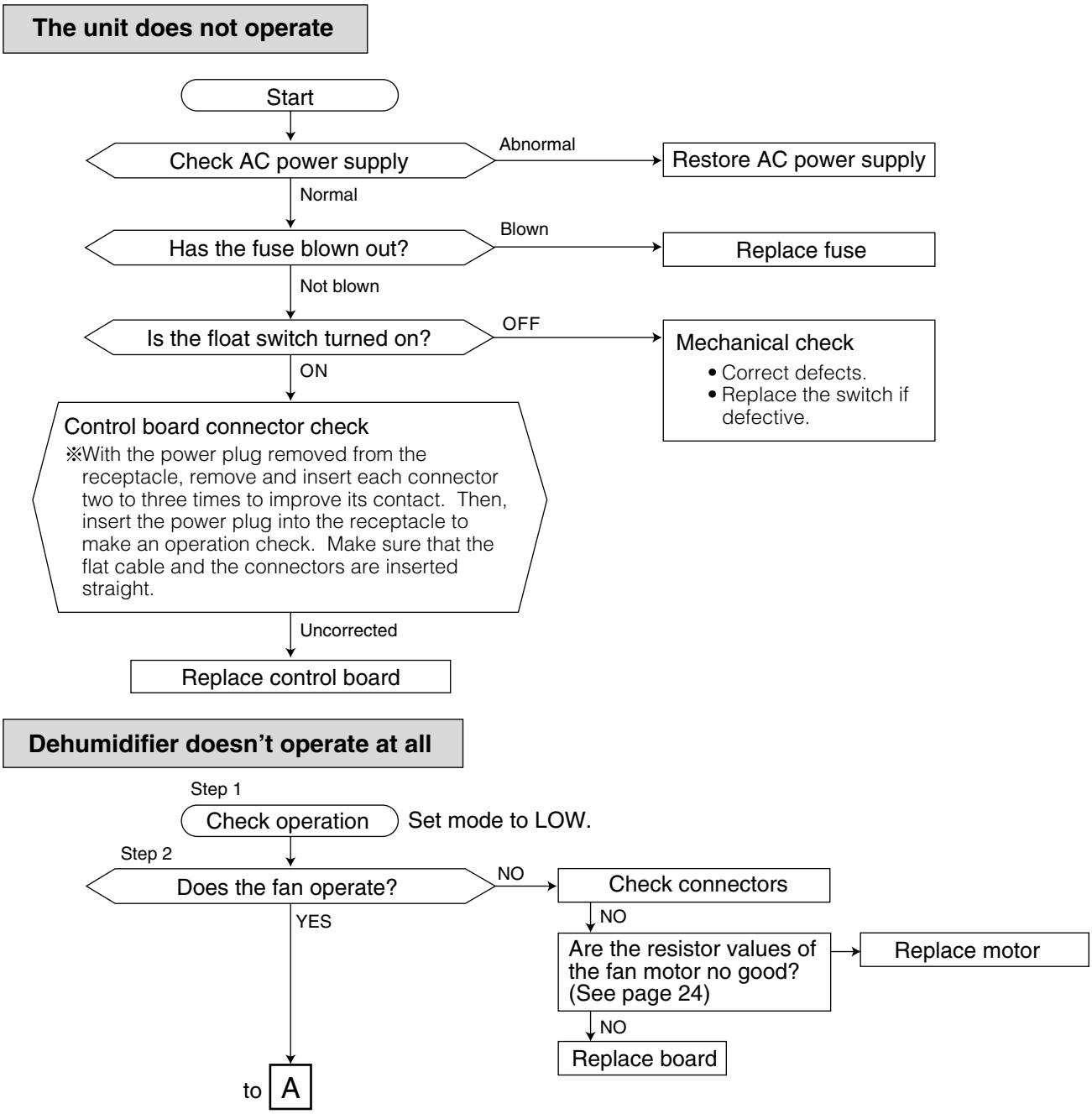
7.4 General Block Diagram

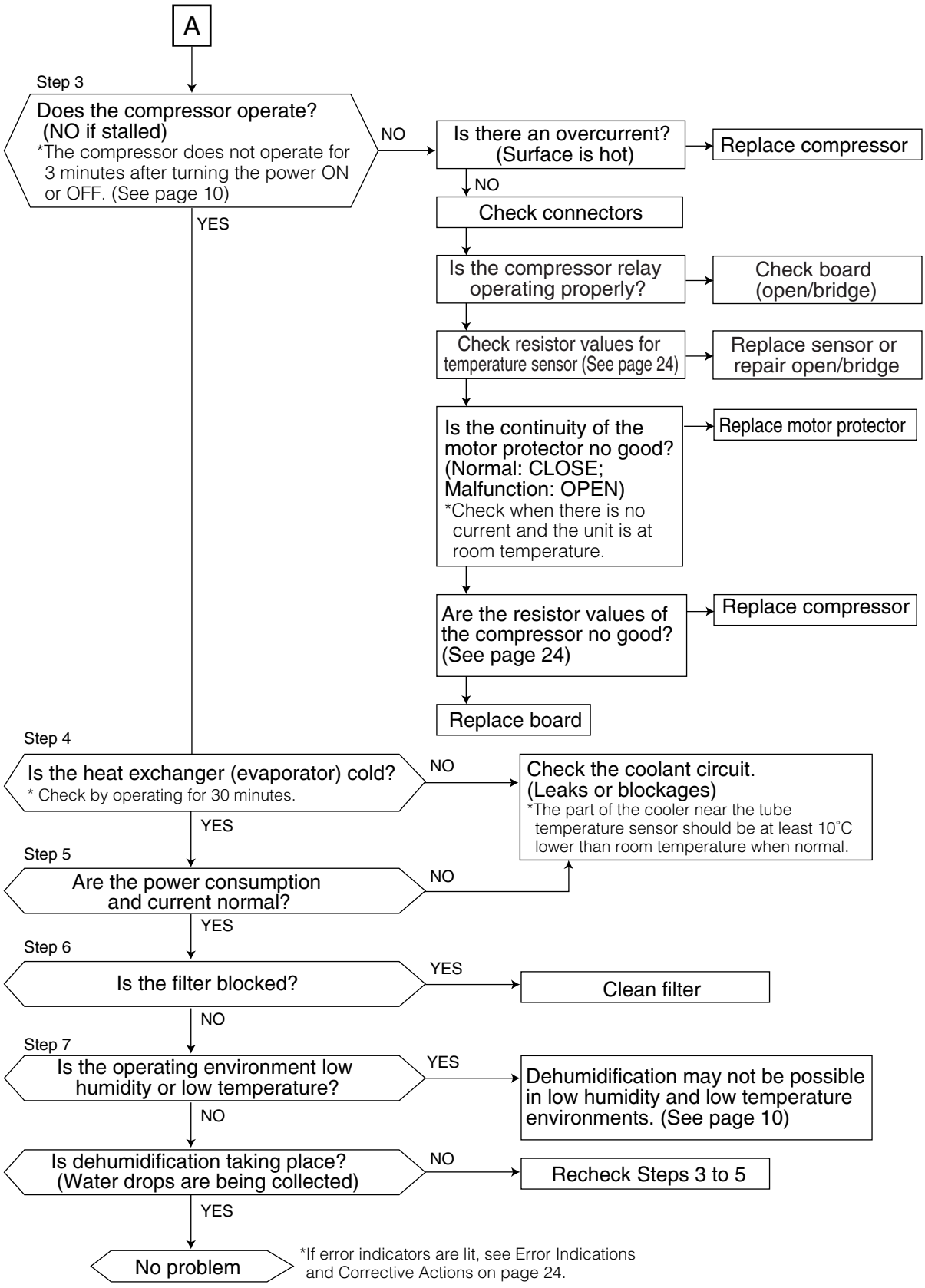



M38503××FP IC1
body.3.1
P200
(JUMPER) R201
(1SS133) D221
L78LR05C
IC3
C225 (473)
C226 (473)
C230 (473)
C201 (16V47)
(100) R221
C227 (473)
RESET
R250 (2.7K)
(10K) R237
(10K) R239
R293 (100)
TR201 (2SC535)
C222 (103)
R238 (4.7K)
C235 (103)
INT0
R235 (3.9K)
R245 (33K)
R246 (62K)
(1.2K) R234
C241 (103)
(10K) R240
(10K) R241
C223 (103)
C224 (103)
P44
P05
P31
P32
(11K 2%) R282
(11K 2%) R283
C231 (102)
R291 (100)
R292 (100)
C232 (102)
R281 (110K 2%)
R242 (4.7K)
C221 (102)
P00
P01
P30
C238 (103)
DTR202 (RT1N234S)
R294 (100)
DTR203 (RT1N234S)
C239 (103)
DTR204 (RT1N234S)
R295 (100)
P04
P03
P02
(22K) R312
(22K) R311
R314 (5.1K)
R313 (5.1K)
R251 (820)
P20
P21
P22
P23
CNTR1
Xin
Xout
(4MHz)
CSTS1
(473) C228
(5.1K) R300
1 2 15 3 21
Vcc Vref CNVSS AVss Vss
P13 P14 P15 P16 P12 P11 P10 P07 P06 P17 P38 P34 P43 P42 P27 P26 P25 P24
(DTA114W) DTR205
(DTA114W) DTR206
(DTA114W) DTR207
(DTA114W) DTR208
R222 (330)
R223 (330)
R224 (330)
R225 (330)
DTR209 (RT1N234S)
DTR210 (RT1N234S)
DTR211 (RT1N234S)
AIR PURIFIER LED201 (G)
LOW TEMP LED202 (G)
LAUNDRY LED203 (G)
HIGH LED204 (G)
FULL AUTO LED205 (G)
DRYING INSIDE LED213 (Y)
FULL LED207 (R)
COLD LED211 (G)
1HR LED208 (Y)
4HR LED209 (Y)
6HR LED210 (Y)
DEFROST LED212 (R)
D223 (1SS133)
D222 (1SS133)
D224 (1SS133)
R243 (10K)
R244 (10K)
R233 (1.2K)
R232 (1.2K)
MODE KEY202
AUTO KEY203
DRYING INSIDE KEY204
ON/OFF TIMER KEY201
POWER KEY206
R249 (5.1K)
R236 (5.1K)
(5.1K) R303
(5.1K) R305
(5.1K) R301
(5.1K) R302
(5.1K) R304
R306 (5.1K)
R226 (330)
R227 (330)
R307 (330)
J203 J204
J201 J202
DEFLOST TEST
TIME UP

8. Troubleshooting Procedure

8.1 Troubleshooting flowchart


The unit does not operate
Start
Check AC power supply
Abnormal
Restore AC power supply
Normal
Has the fuse blown out?
Blown
Replace fuse
Not blown
Is the float switch turned on?
OFF
Mechanical check
• Correct defects.
• Replace the switch if defective.
ON
Control board connector check
※With the power plug removed from the receptacle, remove and insert each connector two to three times to improve its contact. Then, insert the power plug into the receptacle to make an operation check. Make sure that the flat cable and the connectors are inserted straight.
Uncorrected
Replace control board
Dehumidifier doesn't operate at all
Step 1
Check operation
Set mode to LOW.
Step 2
Does the fan operate?
NO
Check connectors
NO
Are the resistor values of the fan motor no good? (See page 24)
Replace motor
NO
Replace board
YES
to A


A
Step 3
Does the compressor operate? (NO if stalled)
*The compressor does not operate for 3 minutes after turning the power ON or OFF. (See page 10)
NO
Is there an overcurrent? (Surface is hot)
Replace compressor
NO
Check connectors
YES
Is the compressor relay operating properly?
Check board (open/bridge)
Check resistor values for temperature sensor (See page 24)
Replace sensor or repair open/bridge
Is the continuity of the motor protector no good? (Normal: CLOSE; Malfunction: OPEN)
*Check when there is no current and the unit is at room temperature.
Replace motor protector
Are the resistor values of the compressor no good? (See page 24)
Replace compressor
Replace board
Step 4
Is the heat exchanger (evaporator) cold?
* Check by operating for 30 minutes.
NO
Check the coolant circuit. (Leaks or blockages)
*The part of the cooler near the tube temperature sensor should be at least 10˚C lower than room temperature when normal.
YES
Step 5
Are the power consumption and current normal?
NO
YES
Step 6
Is the filter blocked?
YES
Clean filter
NO
Step 7
Is the operating environment low humidity or low temperature?
YES
Dehumidification may not be possible in low humidity and low temperature environments. (See page 10)
NO
Is dehumidification taking place? (Water drops are being collected)
NO
Recheck Steps 3 to 5
YES
No problem
*If error indicators are lit, see Error Indications and Corrective Actions on page 24.

* If the customer complains that the unit won't dehumidify, make the following checks before starting to repair the coolant circuit:

① Clogged filter, or dust: ➞ Action: Clean.

② Low-temperature, low-humidity operating environment:

➞ Action: See the explanation of the graph on page 11, or move the unit to a kitchen or bathroom and request verification of its performance.

③ Request checking whether the unit is in an automatically-stopping operation mode such as "EASY DEHUMIDIFYING", etc.

➞ Action: Verify to dehumidify in "LOW" operation mode. (See pages 6 – 7.)

8.2 Key Component Check Procedures

<table>
<tr><th>Component name</th><th>Testing procedure</th></tr>
<tr><td>Tub temperature sensing thermistor
P11</td><td>Detach the connector and measure the resistance using a multimeter
(component temperature: 10°C to 30°C).
<table>
<tr><th>Normal</th><th>Abnormal</th></tr>
<tr><td>Between P11 pins: 8.0kΩ to 20.8kΩ</td><td>Open or shorted</td></tr>
</table></td></tr>
<tr><td>Room temperature and humidity sensor board</td><td>Detach the connector and measure the resistance using a multimeter
(component temperature: 10°C to 30°C).
Normal: 47 to 51kΩ (between P10 pins 3 and 4)
Abnormal: Open or shorted</td></tr>
<tr><td>Compressor</td><td>With the connector detached, measure the resistance across the terminals using a multimeter
(winding temperature: 10°C to 30°C).
<table>
<tr><th></th><th>Normal</th><th>Abnormal</th></tr>
<tr><td>C-R side</td><td>25.0Ω ~ 27.1Ω</td><td rowspan="2">Open or shorted</td></tr>
<tr><td>C-S side</td><td>67.9Ω ~ 73.5Ω</td></tr>
</table></td></tr>
<tr><td>Fan motor</td><td>Measure the resistance between terminals using a multimeter
(winding temperature: 10°C to 30°C).
<table>
<tr><th></th><th>Normal</th><th>Abnormal</th></tr>
<tr><td>Yellow-Blue</td><td>258Ω ~ 280Ω</td><td rowspan="2">Open or shorted</td></tr>
<tr><td>Black-Blue</td><td>379Ω ~ 411Ω</td></tr>
</table></td></tr>
<tr><td>Solenoid valve coil</td><td>Measure the resistance between terminals using a multimeter
(component temperature: 10°C to 30°C).
<table>
<tr><th>Normal</th><th>Abnormal</th></tr>
<tr><td>2.6kΩ ~ 2.9kΩ</td><td>Open or shorted</td></tr>
</table></td></tr>
<tr><td>Stepping motor</td><td>Measure the resistance across terminals with a multimeter.
(Part temperature: approx 25°C)
<table>
<tr><th></th><th>Normal</th><th>Abnormal</th></tr>
<tr><td>Terminals 1-2</td><td rowspan="4">342Ω ~ 418Ω</td><td rowspan="4">Open or shorted</td></tr>
<tr><td>Terminals 1-3</td></tr>
<tr><td>Terminals 1-4</td></tr>
<tr><td>Terminals 1-5</td></tr>
</table></td></tr>
</table>

8.3 Error Indications and Corrective Actions

Indication (Timer display)	Error (failure)	Corrective action
All Mode lamps lit	Frequency determination error Watchdog error RAM error	Check power plug and 100V power supply (Try replacing main and power supply boards) Replace main board (Try replacing main and power supply boards) Replace main board
All timer lamps lit	Compressor	Check blowing performance Check tube temperature thermistor Check compressor operating noise
COLD LAMP flashing	Disconnection or short circuit in room or tube temperature thermistor	P.10, P.11 Connection check Check each thermistor

8.4 Self-Test Program and Execution Procedure

(1) Deactivating 3-minute restart prevent lock

●Start: Press the MODE and AUTO buttons together 3 times when the power is off. Press the POWER button within 2 seconds.

●Functions:

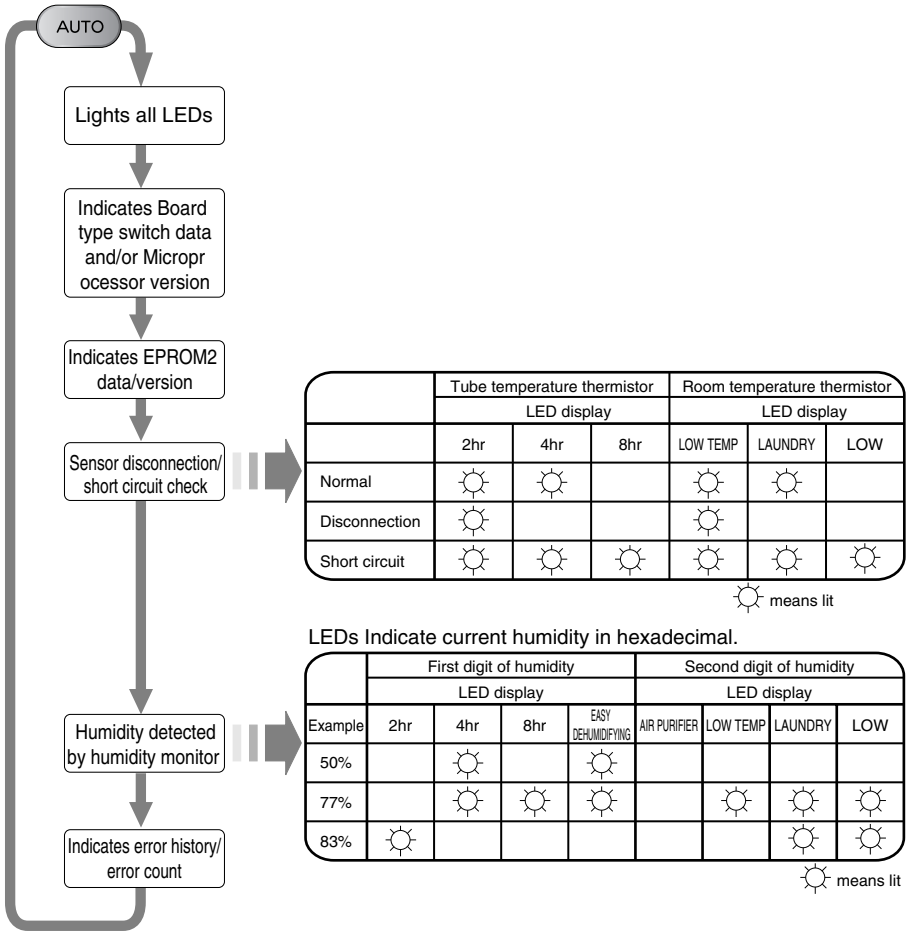
1 Deactivates 3-minute restart prevention lock (immediate operation)
2 Fan: Fix at rank 6 (max. airflow)
3 Activates compressor
4 Operating mode: Low Temp
5 COLD lamp is lit.
6 When E^2PROM error is detected, Full, drying inside, DEF lamp are lit.

●To end: Turn power off. The solenoid valve functions for 4 seconds.

(2) LED sensor test

● Start..... Press the MODE and AUTO buttons together 4 times when the power is off. Press the POWER button within 2 seconds.

● Mode selection ..... Use the AUTO button to change through the self test modes.


AUTO
Lights all LEDs
Indicates Board type switch data and/or Micropr ocessor version
Indicates EPROM2 data/version
Sensor disconnection/ short circuit check
Humidity detected by humidity monitor
Indicates error history/ error count

	Tube temperature thermistor			Room temperature thermistor		
	LED display			LED display		
	2hr	4hr	8hr	LOW TEMP	LAUNDRY	LOW
Normal	☼	☼		☼	☼	
Disconnection	☼			☼		
Short circuit	☼	☼	☼	☼	☼	☼

☼ means lit

LEDs Indicate current humidity in hexadecimal.

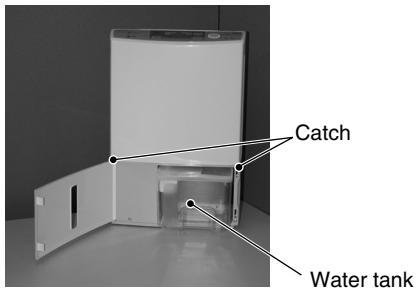
	First digit of humidity				Second digit of humidity			
	LED display				LED display			
Example	2hr	4hr	8hr	EASY DEHUMIDIFYING	AIR PURIFIER	LOW TEMP	LAUNDRY	LOW
50%		☼		☼				
77%		☼	☼	☼		☼	☼	☼
83%	☼						☼	☼

☼ means lit

9. Disassembly and Reassembly Hints

9.1 Disassembly Procedures

Picture 1



1. Remove the water tank

(Pic. 1.)

2. Removing the front panel, and air filter assembly

Step 1) Push the front panel downward, and pull toward you (to release the catch on the bottom). Push up to remove. (Fig. 1)

Step 2) Press the air filter assembly tab, pull the air filter toward you, and remove. (Fig. 2)

Figure 1

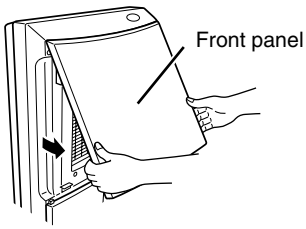
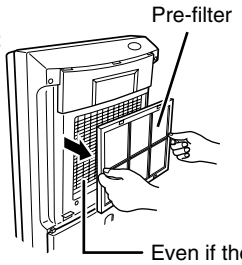


Figure 2



Even if the metal fins on the inside of the unit become bent, this does not affect performance.

3. Removing the front casing assembly

Step 1) Remove the water tank and front panel following the steps for sections 1 and 2 above.

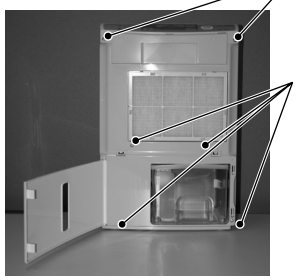
Step 2) Remove front casing set screws (two 4x14, four 4x12). (Pic. 2)

Step 3) Pull the front casing assembly toward you so that it is away from the main unit. (Pic. 3)

Step 4) Pull the power board box toward you, detach the catches on the box lid (one on each side), and remove the lid. (Pic. 4)

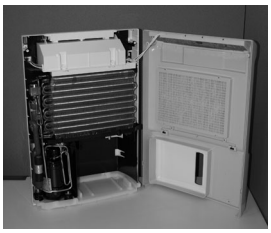
Step 5) Remove connectors P100 and P101 (connectors for main board connection cable) from the power board. Disassemble the front casing assembly. (Pic. 5)

Picture 2

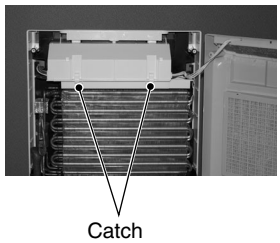


Repairable parts	Control board Power board Tube temperature sensor

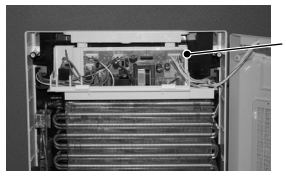
Picture 3



Picture 4



Picture 5



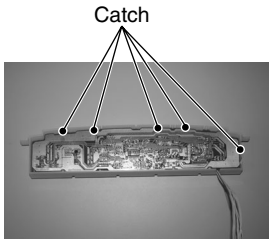
[To remove the control board]

Step 1) Pull the front casing/switch operation part toward the outside, release the catch (protrusion) on the switch button on the main board cover side, and remove the main board cover assembly. (Pic. 6)

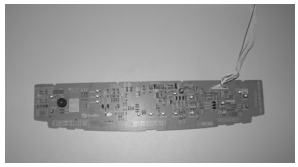
Step 2) Release the main board catches (4 below, 1 on the right), and remove the main board. (Pics. 7, 8)

Picture 6

Picture 7



Picture 8



4. Removing the rear casing

Step 1) Remove the water tank, front panel, and front casing assembly following the steps for sections 1 to 3 above.

Step 2) Remove the rear casing setscrews (6). (Pic. 9)

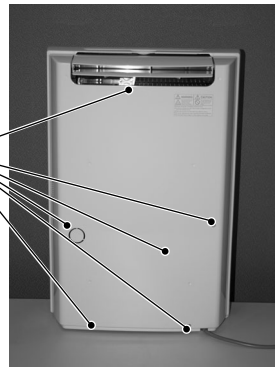
Step 3) Push the rear casing downward, and pull outward to detach the catches on the bottom. Lift the rear casing and raise the handle. Detach the catches that prevent the handle from coming loose, and remove the handle. (Pic. 10)

Step 4) Pull the top part of the rear casing outward, and detach the catches (one on each side) that interlock the screw stop boss and the guide on the side of the fan assembly. (Pic. 10)

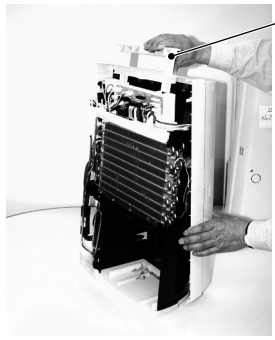
Step 5) Lift the rear casing upward, and remove from under the louvre. (Pics. 11, 12)

Step 6) Remove the louvre net.

Picture 9

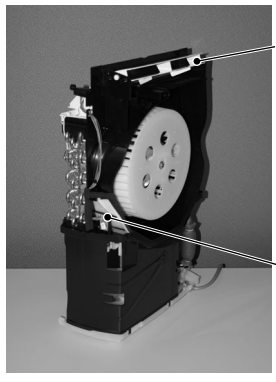


Picture 10

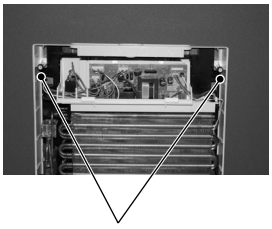


Repairable parts	Fan Temperature/humidity sensor Solenoid valve Float switch Thermal over current switch

Picture 12



Picture 11



Catches (one on each side)

5. To remove the fan assembly

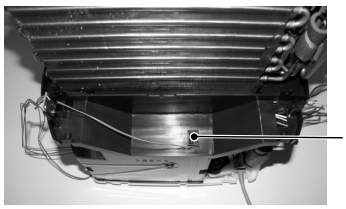
Step 1) Remove the water tank, front panel, air filter assembly, front casing assembly, main board, and rear casing following the steps for sections 1 to 4 above.
Step 2) Remove the condenser and connectors (9) from the power board.
Step 3) Remove the lead wires from both sides of the fan guide casing.
Step 4 Remove the power board box assembly. (Pic. 13)
Step 5) Detach the catches (one on each side) that interlock the fan assembly and the drain pan by leaning the top of the fan assembly toward the heat exchanger and pulling upward. Remove the fan assembly.
(Pics. 14, 15)

Repairable parts	Fan Fan motor Float switch Heat exchanger (radiator, refrigerator)

[To remove the fan motor]
Step 1) Remove the fan locknut and fan. (Pic. 15)
Step 2) Remove the tape securing the fan motor lead wire, and separate the lead wire from the fan guide casing. (Pic. 16)
Step 3) Remove the motor holding plate and setscrews (3). (Pic. 16)
Step 4) Remove the holding plate, fan motor, and fan motor cushion.

[To remove the float switch]
Remove the float switch attached to the drain pan. (Pic. 17)

Picture 17

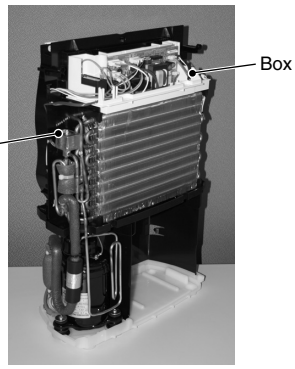


6. To remove the drain pan assembly

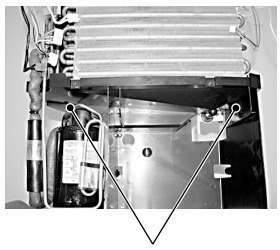
Step 1) Remove the water tank, front panel, front casing assembly, rear panel, and fan assembly following the steps for sections 1 to 5 above.
Step 2) Detach the catches interlocking the drain pan and the base, and remove the base while lifting the right side of the heat exchanger. (Pics. 18, 19)

Repairable parts	Compressor

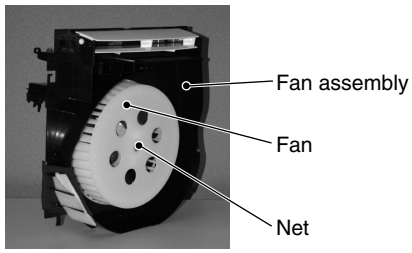
Picture 13



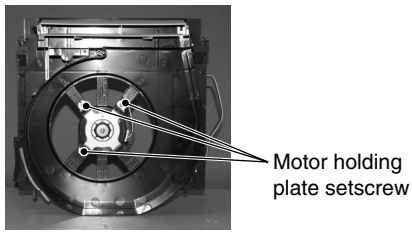
Picture 14



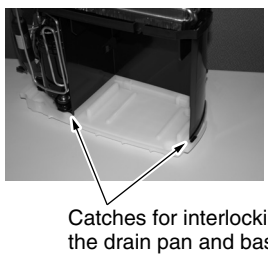
Picture 15



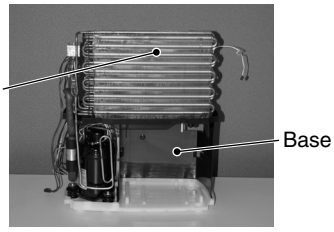
Picture 16



Picture 18



Picture 19



10. Continuous Water Drainage

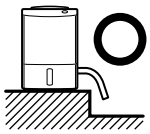
If a drain is available, the unit can continuously drain excess water by attaching a commercially available hose (internal diameter 15mm).
The unit can be operated for extensive periods without the need to empty the water tank.

Necessary items

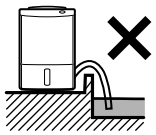
- **Commercially available hose (ID 15mm)**
  Long enough to reach the drain.
- **Pincers**

How to set up the drainage hose

Correctly installed



Incorrectly installed



- hose immersed in water
- hose raised to a level higher than the drainage outlet

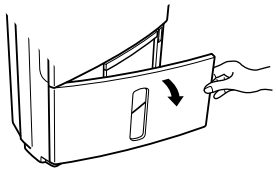
→ **The water will not drain.**

CAUTION

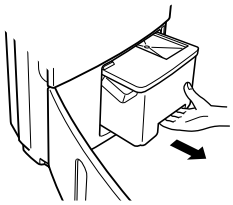
Do not drain water continuously if there is a possibility that temperatures around the hose could drop below freezing point.
Water inside the hose may freeze and water may leak from the unit and **damage surrounding objects**.

When draining water continuously or left unattended for long periods, inspect the unit once a fortnight.
Foreign objects, etc. could clog the hose **resulting in overheating and/or leakage**.

1 Remove the water tank.

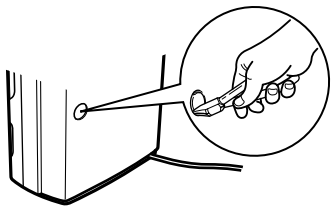


Open the front door.



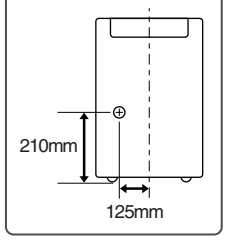
Grasp handle and pull out.

2 Open the drainage outlet.

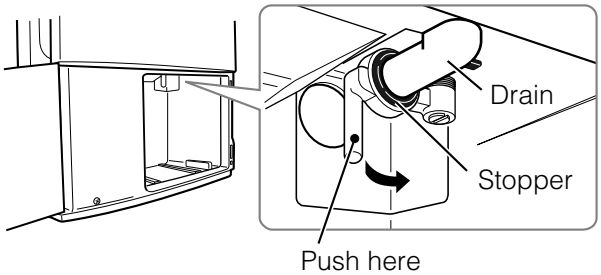


Use cutters to cut the three fixing ribs of the continuous drainage port on the back of the main unit, then remove it carefully making sure that it does not fall inside the unit.

Position of drainage outlet

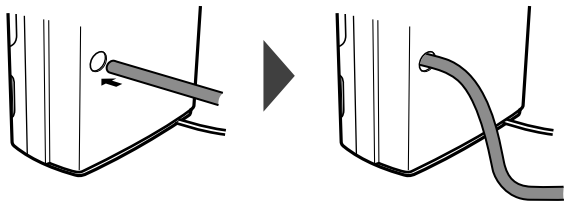


3 Press drain stopper.

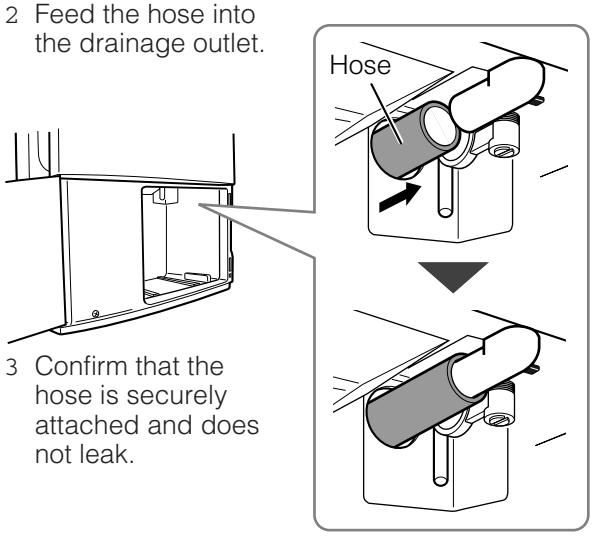


4 Insert the hose into the drainage outlet on the back.

1 Feed the commercially available hose (ID 15 mm) into the drainage outlet while keeping the stopper pressed.



2 Feed the hose into the drainage outlet.



3 Confirm that the hose is securely attached and does not leak.

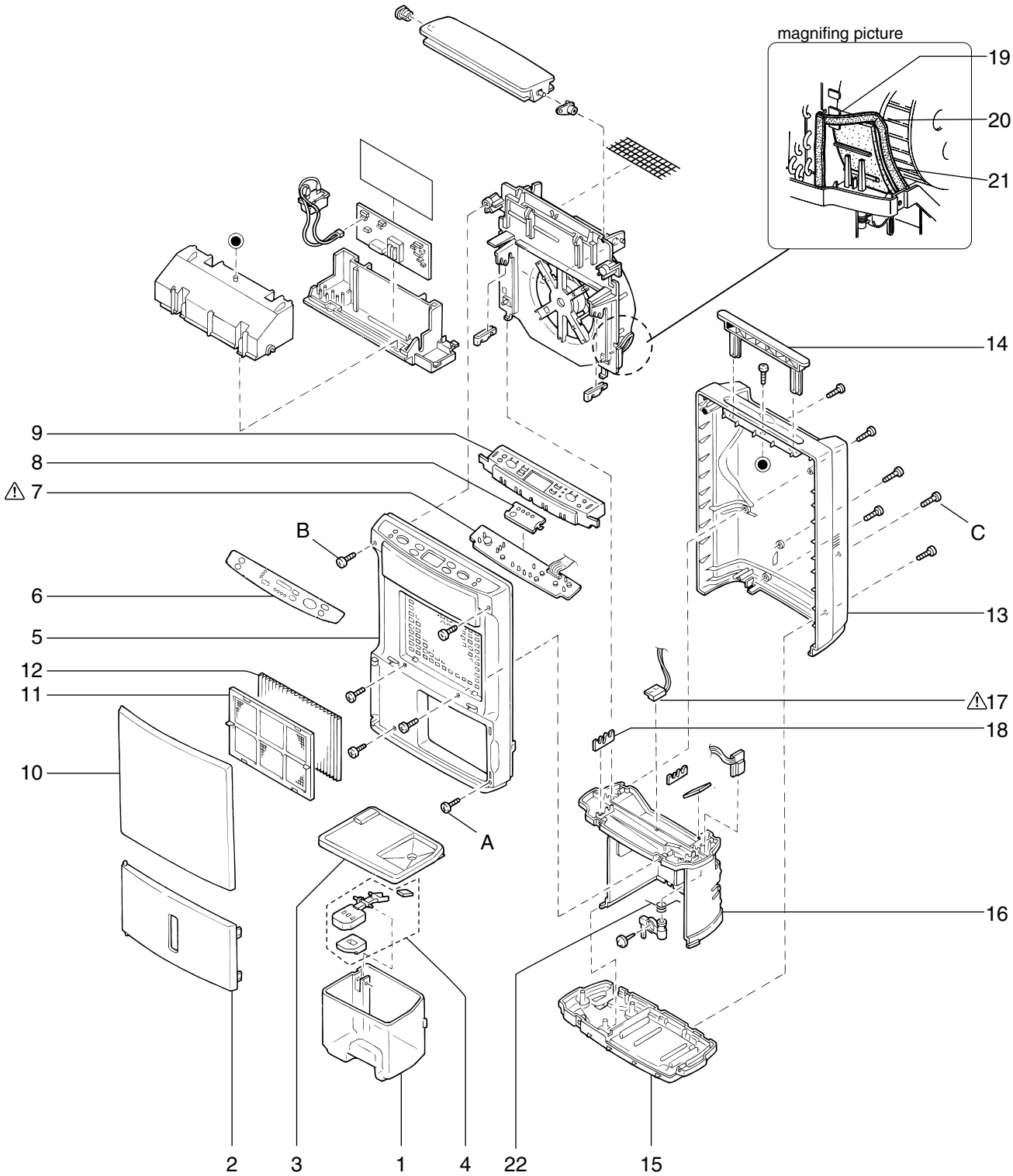
5 Replace the tank, and set the end of the hose in the drain.

The unit cannot operate without returning the tank.

Note

- Leave a minimum space of 20 cm behind the unit for attaching the hose.
- Confirm that the hose does not show signs of deterioration such as cracks and clogging.
- Inspect the hose every 2 weeks. Insects or dirt blocking the hose may cause leakage resulting in malfunctions.

Model MJ-E16V-S1 Exploded View
<Casing and Structure>



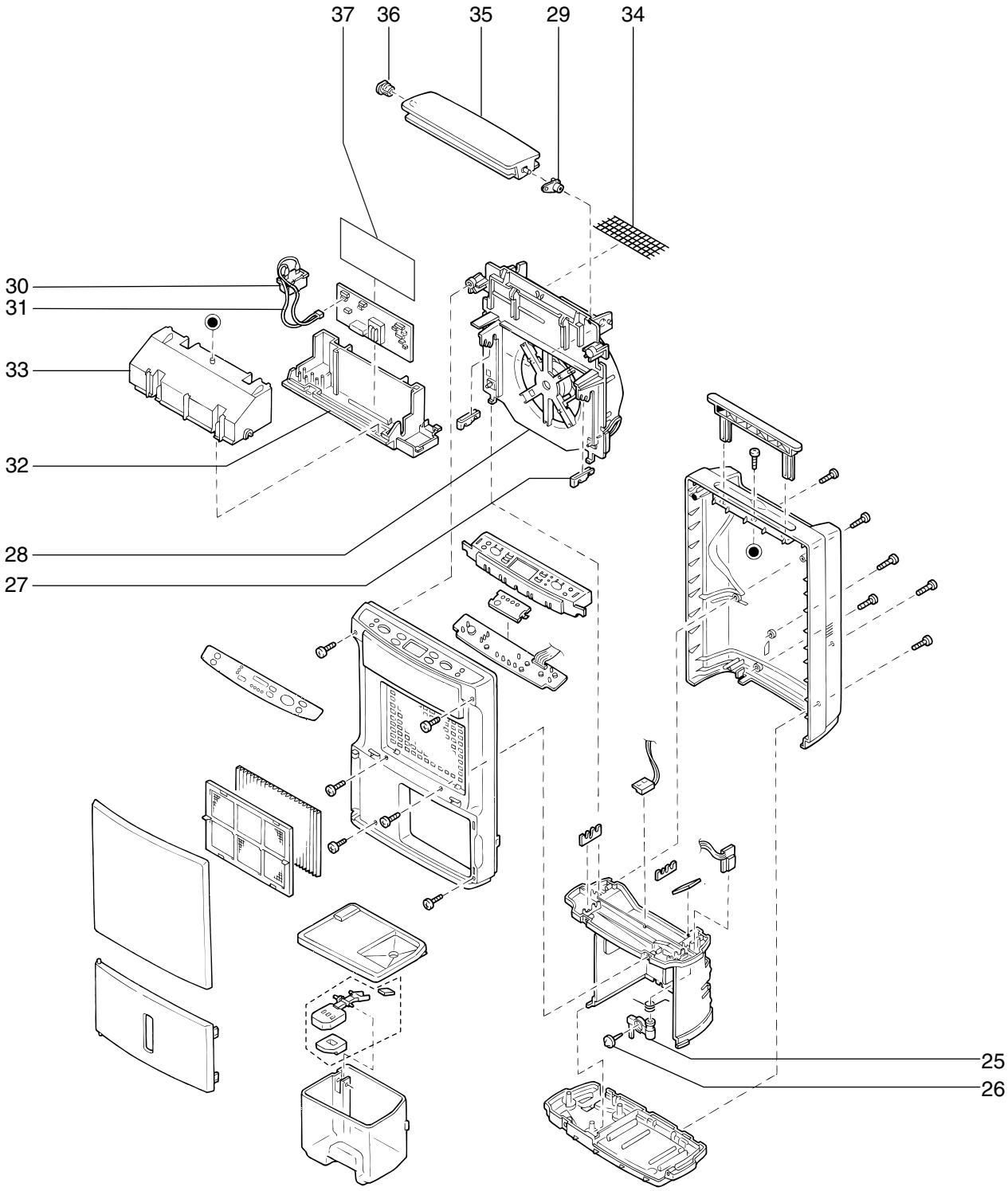
Model MJ-E16V-S1 Parts List
<Casing and Structure>

Notes:
1. Circled reference numbers indicate performance parts.
2. New parts and the parts that are used only with these models lack compatibility.
3. Those parts that are marked by ⚠ and ▭ are of critical importance for sustaining safety and performance. Use specified parts atreplacement.
4. When ordering parts without part numbers, use the design number. The order may take a while to process.

Exploded View Matching No.	Part Name	Part No.	Safety Part	Pc/1 unit	Compatibility/Miscellaneous	
1	TANK-S(X)	M22 B15 738		1		
2	COVER-TANK∗100T	M22 B19 741		1		
3	LID-TANK-S(X)	M22 B15 697		1		
4	FLOAT∗ASSY-100S(X)	M22 B25 379		1		
5	CASE-F∗100VX-H	M22 B25 233H		1		
6	ESC-SW∗E16V	M22 C45 440		1	(New)	
(7)	PCA∗MJ-E16V∗M	M22 C45 450M	⚠	1	(New)	
8	HOLDER-LAMP∗100S	M22 B16 978		1		
9	FIXTURE PCA-M∗100T	M22 B19 781		1		
10	PANEL-F∗100V	M22 B24 001		1		
11	FILTER∗ASSY-100V	M22 B30 100		1		
12	MJPR-SXFT	M48 5C5 813		1	MJPR-SXFT (expendable item)	
13	CASE-R∗100VX	M22 B25 232		1		
14	HANDLE∗100/160V(X)	M22 B25 063		1		
15	BASE-100S(X)	M22 B15 290		1		
16	DRAINPAN∗100S(X)	M22 C44 700		1		
(17)	SWITCH-LEVEL∗160WX	M22 C44 501	⚠	1		
18	CUSHION-HEX-U∗S(X)	M22 B15 218		2		
19	PACK-SRNSOR∗S(X)	M22 B15 222		1		
20	PACK-SENSOR∗S(X)-2	M22 B15 223		1		
21	PACKING-SENSOR	M22 B25 224		1		
22	SPRING-S∗100S	M22 B15 128		1		
A	SCW-PL-TBFZR 4X12	——		4		
B	SCW-MPFZR M4X14-TORX	——		2		
C	SCW-PL-TBFZR 4X12	——		7		

∗1. If the part is out of production, you may be required to use a common part.
∗2. Parts found installed in products may have a different part number from service parts. However, there should be no difference inperformance and can be installed.

Model MJ-E16V-S1 Exploded View
<Casing and Structure>



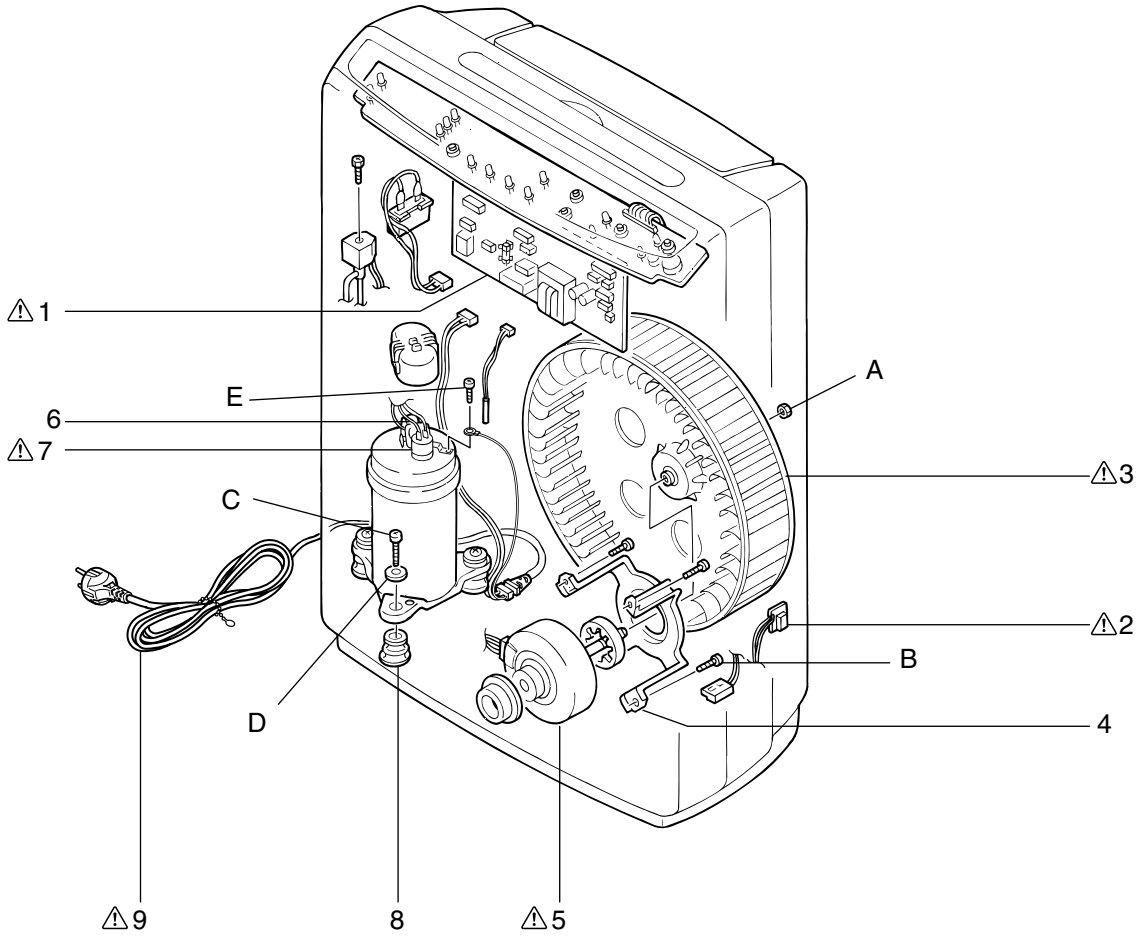
Model MJ-E16V-S1 Parts List
<Casing and Structure>

Notes:
1. Circled reference numbers indicate performance parts.
2. New parts and the parts that are used only with these models lack compatibility.
3. Those parts that are marked by ⚠ and ▭ are of critical importance for sustaining safety and performance. Use specified parts atreplacement.
4. When ordering parts without part numbers, use the design number. The order may take a while to process.

Exploded View Matching No.	Part Name	Part No.	Safety Part	Pc/1 unit	Compatibility/Miscellaneous	
25	STOPPER-PLATE∗100S(X)	M22 B15 788		1		
26	PACKING-RUB	M22 J67 923		1		
27	CUSHION-HEX-T	M22 B15 219		2		
28	CASING-100V(X)	M22 B25 113		1		
29	SPRING-LOUVER ∗N	M22 J67 034		1		
30	RUNCAPACITOR∗E100	M22 C01 353		1		
31	LEAD WIRE-R/C∗140TX	M22 B19 130		1		
32	BOX-PCA∗10/16V	M22 B25 081		1		
33	COVER-BOX∗10/16V	M22 B25 114		1		
34	NET-S(X)	M22 C22 512		1		
35	LOUVER-V(X)	M22 B25 045		1		
36	SUPPORT-LOUVER	M22 B15 036		1		
37	INS-PLATE-MICA∗10	M22 B24 994		1		
38	LEAD WIRE S/M∗VX	——		1		
–	NAME-PLATE∗E16V-S1	M22 C45 450		1	(New)	
–	I.B∗E16V-S1	M22 C45 791		1	(New)	

∗1. If the part is out of production, you may be required to use a common part.
∗2. Parts found installed in products may have a different part number from service parts. However, there should be no difference inperformance and can be installed.

Model MJ-E16V-S1 Exploded View
<Electrical Parts>



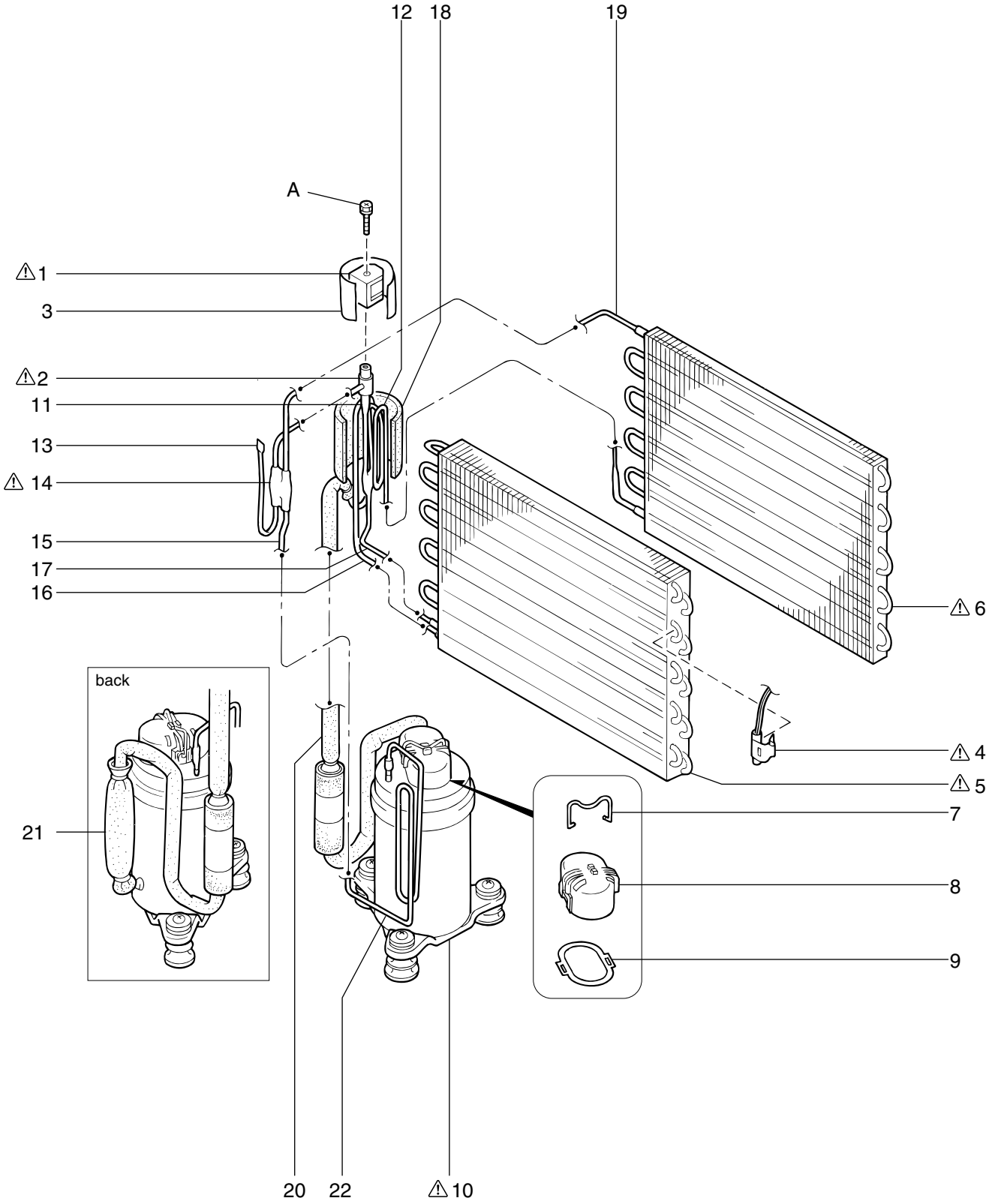
Model MJ-E16V-S1 Parts List
<Electrical Parts>

Notes:
1. Circled reference numbers indicate performance parts.
2. New parts and the parts that are used only with these models lack compatibility.
3. Those parts that are marked by ⚠ and ▭ are of critical importance for sustaining safety and performance. Use specified parts atreplacement.
4. When ordering parts without part numbers, use the design number. The order may take a while to process.

Exploded View Matching No.	Part Name	Part No.	Safety Part	Pc/1 unit	Compatibility/Miscellaneous	
(1)	PCA∗MJ-E23/16V ∗P	M22 C45 440P	⚠	1	(New)	
(2)	SENSOR∗HUM-100W(X)	M22 B31 311	⚠	1	(New)	
3	FAN-T(X)∗ASSY	M22 B25 500		1		
4	HOLDING PLATE-M∗NX-R	M22 C44 260		1		
(5)	MOTOR-E16VX	M22 C44 300	⚠	1		
6	LEAD WIRE-E16VX∗ASSY	——		1		
(7)	M-PROTECTOR∗LYDP98X	M22 C44 502	⚠	1		
8	RUBBER-MOTOR	M22 B13 511		3		
(9)	PLUG-CORD∗E16S	M22 C29 395	⚠	1		
A	NUT-HFZR M6	M22 B30 792		1		
B	SCW-PL-TBFZR 4X12	——		3		
C	SCW-TPFZR 5X35M	——		3		
D	SPL WASHER-R	——		3		
E	SCW-MPBN M4X6	——		1		

∗1. If the part is out of production, you may be required to use a common part.
∗2. Parts found installed in products may have a different part number from service parts. However, there should be no difference inperformance and can be installed.

Model MJ-E16V-S1 Exploded View
<Compressor Parts>



Model MJ-E16V-S1 Parts List
<Compressor Parts>

Notes:
1. Circled reference numbers indicate performance parts.
2. New parts and the parts that are used only with these models lack compatibility.
3. Those parts that are marked by ⚠ and ▭ are of critical importance for sustaining safety and performance. Use specified parts atreplacement.
4. When ordering parts without part numbers, use the design number. The order may take a while to process.

Exploded View Matching No.	Part Name	Part No.	Safety Part	Pc/1 unit	Compatibility/Miscellaneous	
(1)	S/COIL TAPE∗ASSY-EVX	M22 C44 629	⚠	1	↰ attached	
(2)	SOLENOIDO VALVE-R	M22 C50 629	⚠	1		
3	TAPE	——		1		
(4)	THERMISTOR-EVA∗W(X)	M22 C44 555	⚠	1	(New)	
(5)	COOLER∗100T(X)	M22 B19 630	⚠	1		
(6)	CONDENSER∗100W(X)	M22 B31 620	⚠	1		
7	CLIP	——		1		
8	TERMINALCOVER	M22 B15 018		1		
9	PACKING	M22 J16 923		1		
(10)	COMP∗XB460VTE	M22 C13 820	⚠	1	XB460VTE ↰ E16SX-A1	
11	PIPE SV-CT∗100S(X)	——		1		
12	PIPE CT∗100S(X)	——		1		
13	CHARGE PIPE∗100S(X)	——		1		
(14)	JOINT	M22 B15 653	⚠	1		
15	PIPE D-J∗P(X)	——		1		
16	PIPE OUT EVA-100S(X)	——		1		
17	PIPE IN COOL∗100S(X)	——		1		
18	PIPE COVER∗C.T	——		1		
19	PIPE IN CON∗100S(X)	——		1		
20	PIPE SUC∗S(X)∗ASSY	M22 C29 645		1		
21	PIPE COVER∗COMP	M22 B15 221		1		
22	PIPE DIS∗S(X)	M22 B15 650		1		
A	SCRE SEMS M4X0.7X6	——		1		

∗1. If the part is out of production, you may be required to use a common part.
∗2. Parts found installed in products may have a different part number from service parts. However, there should be no difference inperformance and can be installed.

11. Troubleshooting

- **For the symptoms listed below, refer to the remedies listed right.**

Symptom	Cause/Remedy
The unit blows warm air	● Dehumidified air passes through heating coils causing it to warm (this unit is not a cooler). This is not a malfunction.
Water does not collect in the water tank (minimal dehumidifying results)	● Check to see if the temperature/humidity is low. Low room temperature/humidity reduces dehumidifying effectiveness (in winter, the air is cooler reducing the amount of water collected). This is not a malfunction.
The unit does not turn on (no air comes out) **The unit keeps turning off**	● Check to see if the power cord is correctly plugged. → Plug the power cord properly into the power socket. ● Check to see if anything is blocking the air intake or outlet. → Remove the obstruction.
	● Check to see if the pre-filter is clogged. → Clean according to the maintenance procedures.
	● Check to see if the unit is in AUTO. The unit is automatically controlling the dehumidifier, fan, and standby times.
Lights	● Check to see if the water tank is full. → Empty the water tank and return it to its original position. ● Check to see if the water tank is inserted properly. → Adjust the position of the water tank.
Indicates	● Check to see if the unit is in defrosting mode. The unit activates defrosting mode when the room temperature drops below 15°C. The dehumidifier and blower functions stop during defrosting.
The unit continues to operate even though it is turned off	● Is the unit set to drying inside mode? This function activates automatically after the unit finishes operating.
The humidity level does not reach the level set	● Check to see if the room is not too large. ● Check to see if the exits to the room are open. → Refrain from opening doors/windows during operation. ● Check to see if steam producing appliances such as kerosene heaters are on in the vicinity.
The water tank contains liquid or white water residue	● The residue is from final product testing at the factory. It is not a result of a malfunction.
There is black residue on the inside of the water tank and lid	● The residue is from debris in the air. → Clean according to the maintenance procedures.

Symptom		Cause/Remedy
The unit makes noises	**The operating noise is loud/reverberates**	● Check to see if the unit is on a slope or uneven surface. → Move to a sturdy even surface. ● Check to see if the pre-filter is clogged. → Clean according to the maintenance procedures. ● Operating the unit in small rooms or in tight spaces sometimes causes the sound to reverberate. → Place a mat underneath the unit.
	The operating sound suddenly increases in volume	● The sound increases when the compressor activates (3 minutes after turning on the unit or during One-touch dehumidifier and Automatic modes).
	The wind sound changes in volume	● The volume of the sound differs depending on the angle of the louver.
	The unit produces a simmering sound	● This is the sound of the refrigerant. The sound can be heard while the refrigerant stabilizes after the unit turns on, changes modes, or stops.
	The unit produces a buzz that sounds intermittently (or the compressor does not activate)	● This is the sound of the compressor. In modes that monitor the humidity level or during drying inside the compressor operates intermittently causing the sound to be heard occasionally. The compressor does not activate after turning the unit off, or for 3 minutes after plugging the unit into a power socket. (This is to protect the compressor from damage.)
The unit produces an odour	**When first used**	● The heat converter heats rapidly causing a brief odour. This is not a malfunction.
	During drying inside	● The moisture expelled from inside the unit may smell due to odorants that were not caught by the air purifying filter dissolving in the water. This is not a malfunction.

● **Error message**

Digital display	Cause/Remedy
All the Mode lamps are lit **(LOW, LAUNDRY, LOW TEMP and AIR PURIFIER)**	● Check to see if the power cord is plugged into the power socket properly. → Plug the power cord into the power socket properly.
All the Timer lamps are lit ○ 8HR ○ 4HR ○ 2HR	● Check to see if anything is blocking the air outlet. → Remove the obstruction, and plug the power cord into the power socket again. ● Check to see if the pre-filter is clogged. → Clean according to the maintenance procedures.
COLD **lamp flashes**	● **Malfunction** **→ Take note of the error message, unplug the power cord, and seek service assistance using the number on the next page.**

● **If the symptoms persist even after following the prescribed remedies, or the error message does not disappear, unplug the power cord, and seek service assistance using the number on the next page.**

Precautions

The following diagrams indicate circumstances where danger can result from mishandling the unit.

⚠ WARNING
Mishandling may result in fatal or serious injuries.

⚠ CAUTION
Mishandling may result in injuries or damage to your home or property, etc.

Meanings of the graphic symbols used in this manual and on the unit are explained below.

Forbidden	Do not disassemble
Keep away from fire	Do not subject to water

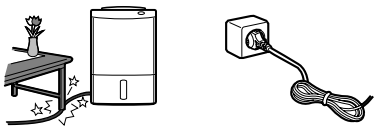
Always follow the instructions

⚠ WARNING

Do not start/stop the unit by plugging/unplugging the power cord.
This may result in **fire and/or electric shock**.

Do not use extension cords or multiple head adapters.
This may result in **fire, electric shock or malfunctions**.

Do not damage or modify the power cord or plug.
Do not modify, bundle, twist, bend or heat the power cord. Do not place under objects or use with the end close to the plug bent.

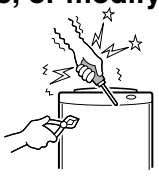


The cord may be damaged resulting in **fire or electric shock**. (Keep pets from biting the cord.)

Do not put your fingers or any long object, into the air intake/outlet.

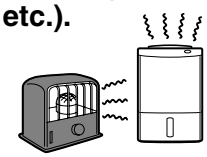
The internal fan rotates at high speeds, and such actions may result in **injury or malfunctions**.

Do not attempt to repair, disassemble, or modify the unit.



This may result in **fire and/or electric shock**.
See the last page for service contact details.

Do not put the unit near heat-generating devices (such as stoves, fan heaters, etc.).



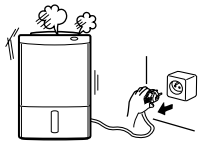
The plastic parts may melt **causing fire**.

Wipe dust off the power plug and insert the plug firmly.
If the plug is not fully inserted into the socket, dust may gather on the connectors which may cause **fire and/or electric shock**.

Use 220-240V AC power sockets.
Connecting to power sockets other than 220-240V AC may result in **fire and/or electric shock**.

Remove water that has collected in the tank.
Accidentally drinking the water or using it for other purposes may cause **illness and/or unforeseen accidents**.

Should abnormal symptoms occur (a burning smell, etc.), switch off the unit and unplug it from the socket.



Continuing to operate the unit may result in **fire, electric shock, or malfunctions**.
See the last page for service contact details.

⚠ CAUTION

Do not cover the front or side air intakes or the air outlet with cloth, curtain, etc.

This results in poor ventilation and may cause **heat generation/fire**.

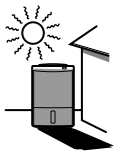
Do not stand on, sit on or lean against the unit.

The unit may tip over causing **injury**.

Do not put vases or any other objects filled with water on the unit.

Water may leak into the unit adversely affecting electric insulation and cause **electric shock and/or fire by short-circuiting**.

Do not use the unit where it may be exposed to direct sunlight or other weather conditions. (This unit is for indoor use only.)

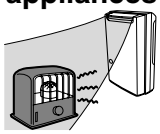


This may cause **overheating, electric shock and/or fire caused by an electric leak**.

Do not use the unit in narrow, enclosed places such as inside closets, between pieces of furniture, etc.

This results in poor ventilation and may cause **heat generation and/or fire**.

Do not use combustion appliances in the path of the air outlet.

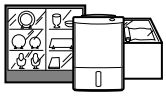


This may cause **incomplete combustion** in the appliance.

Do not use the unit in places where chemicals are used (such as hospitals, factories, laboratories or beauty salons).

Chemicals and solvents evaporated in the air may harm the unit and cause water in the tank to leak, **resulting in damage to property**.

Do not use the unit for special purposes, such as preservation of food, art or scientific works.



This may negatively affect **the quality of the items stored**.

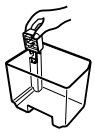
Do not drain water continuously if there is a possibility that temperature around the hose could drop to freezing point.

Water inside the hose may freeze and prevent the water in the tank from flowing out.
The water may leak from the unit and **damage surrounding objects**.

Do not use the unit in places that may be subject to oil or flammable gas leakage.

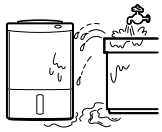
Such a leak around the unit may cause **combustion** and **fire**.

Do not remove the Styrofoam from the floating element.



The floating element will not be able to detect a full tank resulting in water leakage, which may **damage surrounding objects or cause electric shock and/or an electric leak**.

Do not wash the unit with water. Do not use the unit where it is likely to come in contact with water.



Exposure to water may result in **fire or electric shock caused by an electric leak** .

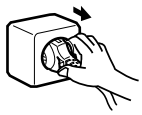
Do not point air-flow from the unit directly at the body.

If air-flow is directed at the body for long periods, it may **harm one's physical condition** and **lead to dehydration**.

Install the unit in a location where the floor is flat and stable.

If the unit falls over, the water collected in the water tank may leak **damaging surrounding objects and in turn result in fire or electric shock caused by an electrical leak**.

Grasp the plug and remove from the power socket.



When removing the plug from the power socket, do not pull on it diagonally or by the cord as this may cause the projections/wiring to be damaged resulting in **a short circuit, electric shock or fire**.

Before moving the unit always switch it off, unplug it and remove water from the water tank.

Moving the unit with water in its tank may cause the water to leak and **damage the surrounding objects and in turn result in electric shock and/or an electric leak**.

Precautions (cont.)

CAUTION

After emptying the tank, transport the unit by grasping the handle firmly.

Losing your footing while carrying the unit may cause **personal injury or damage to the floor**.

When using the continuous drainage outlet, make sure to position the hose so that the water drains without obstruction.

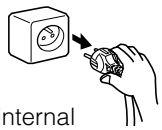
The water in the tank may leak and **damage surrounding objects**.

When draining water continuously or left unattended for long periods, inspect the unit every two weeks.

Do not allow debris to clog the filter/hose as this may cause **over-heating/leakage**.

Use the unit with caution in rooms where the walls, furniture and art work are vulnerable to dry air, as it may cause cracks and warping.

Switch the unit off and unplug from the power source when cleaning it.



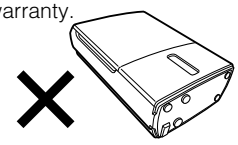
When the unit is on, the internal fan rotates at high speeds and may cause **injury**.

Unplug the unit from the power source when not using the unit for an extended period of time.

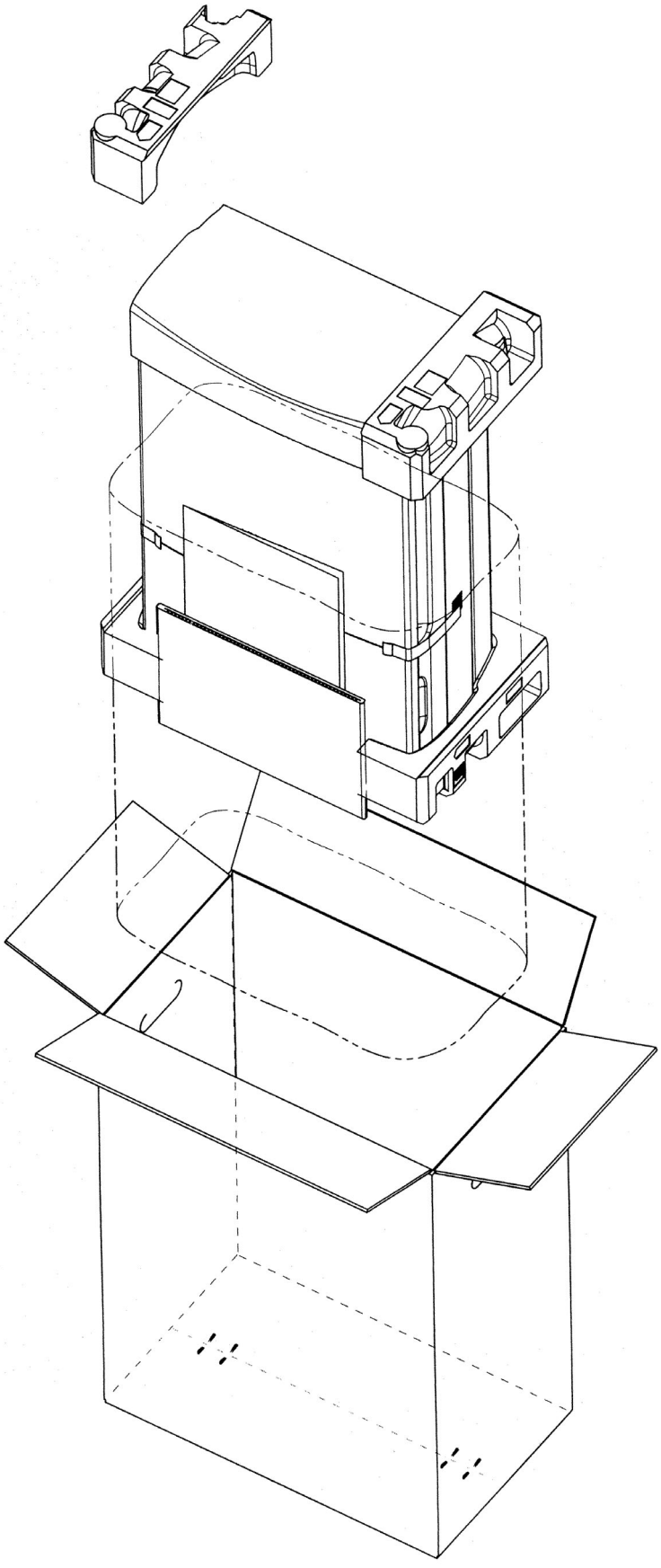
Otherwise it may cause **fire and/or electric shock caused by an electric leak**.

Warning

- **Keep the unit always in an upright position.** Inclining the unit may cause water in the tank to leak into the unit, **resulting in malfunction**. Should this happen contact service number on the last page for advice.
- Damage to the dehumidifier caused by atmospheric conditions (ie. Salt or Sulphur) will not be covered under warranty.
- **Do not carry the unit horizontally.** This may **result in malfunctions**. Such malfunctions are NOT covered under warranty.



Packaging diagram



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